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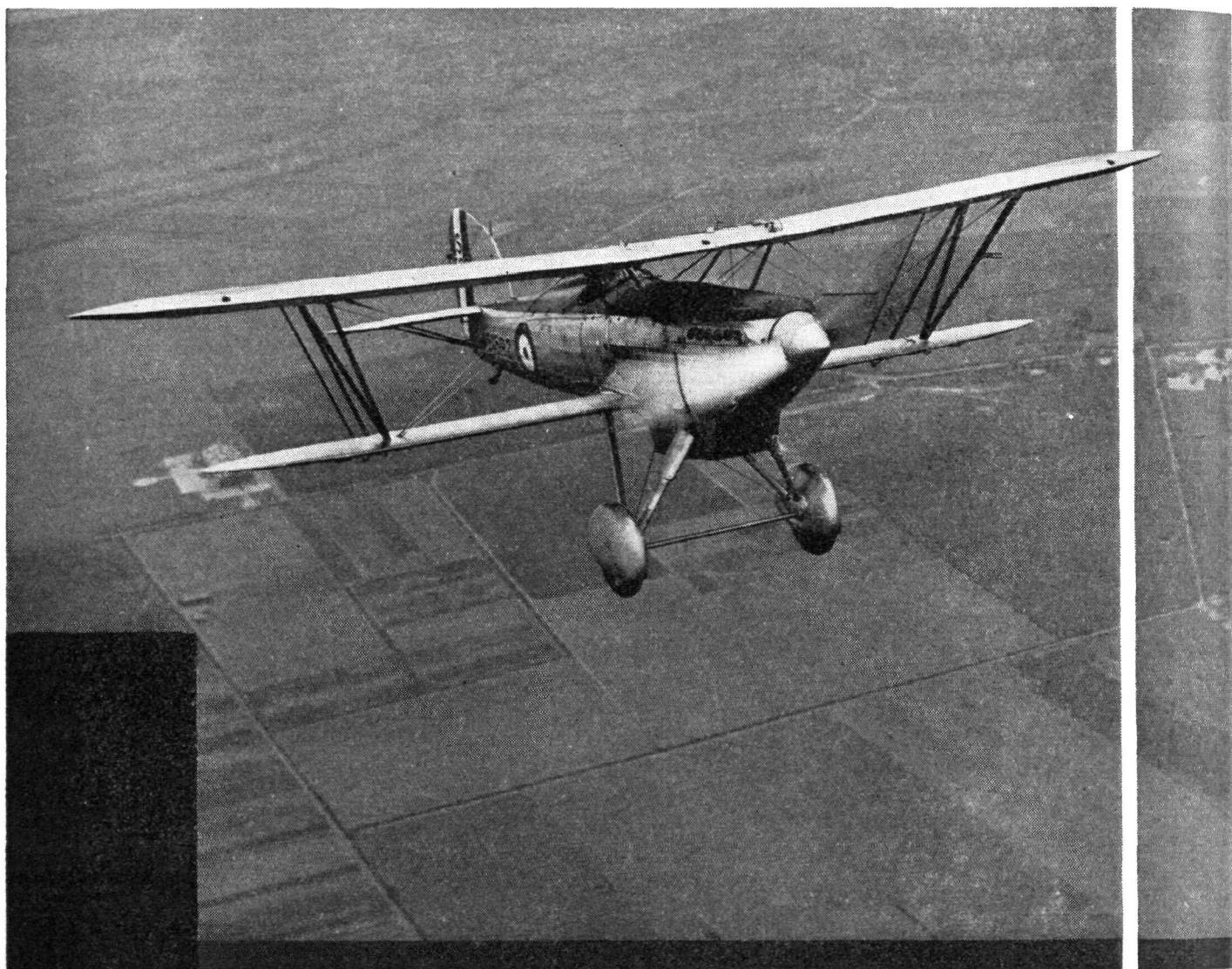
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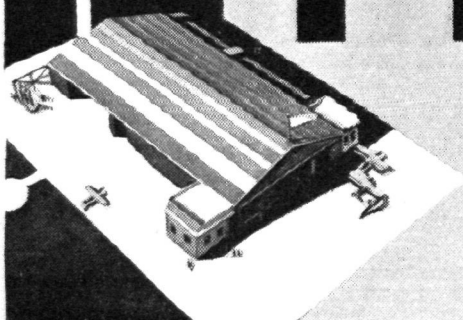
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DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list:—

1933.
July 31-Aug. 4. Lawn Tennis: Airmen's Championships, Halton.
Aug. 5. Aviation Display, Phoenix Park, Dublin.
Aug. 5 and 7. Air Display and Rally, Polo Ground, Chestfield, Whitstable.
Aug. 7. Scarborough Ae.C. Flying Meeting.
Aug. 6-9. Leicestershire Ae.C. Aerial Tour.
Aug. 12. London-Newcastle Race.
Aug. 13-20. International Gliding Competition, Wasserkuppe, Germany.
Aug. 19-20. 5th Annual Canadian Air Pageant, St. Hubert Airport, Montreal.
Aug. 31.-Sept. 9. Model Engineer Exhibition, R.I. Horticultural Hall, Westminster.
Sept. 1-4. International Air Races and Gordon Bennett Balloon Race, Chicago.
Sept. 2. Norfolk and Norwich Ae.C. Garden Party.
Sept. 9. Kent Air Pageant, Maidstone Airport.
Sept. 9. Essex Aviation Display, Maylands Aerodrome, Romford.
Sept. 16. Bristol and Wessex Ae.C. Garden Party.
Sept. 29. Stage and Screen Ae.C. Gymkhana and Theatrical Garden Party, Hatfield.
Dec. 18-24. International Rally at Cairo and Meeting of the F.A.I.

EDITORIAL COMMENT



Bombing the Bajauris

NCE more the Pathan clans on the North West Frontier of India are out on *lashkar*, and a brigade of British Indian troops, supported by two wings of the Royal Air Force, are hastening to the support of the friendly Halimzai tribe. Their task is to defend the Halimzai from the attacks of two hostile tribes, the Bajauris and the Northern Mohmands. Doubtless some pacifists here and abroad will grow vocal on the inhumanity of using bombers to deal with the Bajauri villages, and, by implication at all events, they would applaud the Government of India if it were to leave our friends the Halimzai to the tender mercies of their foes.

However, we have entrusted the Halimzai with the task of keeping peace in their tract of territory, and we have bound ourselves to come to their aid if they are attacked. We do not intend to treat this undertaking as a "scrap of paper."

A few days ago a certain correspondent in India caused amusement by sending a report that in this little war the Royal Air Force would not be used, out of deference to feelings at Geneva. This, of course, is not the case, and it is now reported that Nos. 1 and 2 Indian Wings have been ordered to support the troops. Another little comedy may be mentioned in this connection. No. 1 Indian Wing consists of Nos. 27 and 60 (Bomber) Squadrons, both stationed at Kohat and both flying "Wapitis." So far so good. No. 2 Indian Wing is stationed at Risalpur and consists of two squadrons of "Harts," Nos. 11 and 39 B.S. The Simla correspondent of a leading daily London newspaper reported that "R.A.F. Squadrons No. 11 and 29, composed of 'Hart' and 'Bulldog' machines from Risalpur . . . are also standing by." This seemed very circumstantial, but it made us rub our eyes. We have no single-seater fighters in overseas stations, and, moreover, No. 29 (Fighter) Squadron with its "Bulldogs" was taking part in the Air Exercises in Great Britain only last week. Its sudden appearance on the Indian Frontier

suggested that the R.A.F. had grown even more mobile than we had supposed. But the correspondent was right in saying that No. 29 has "Bulldogs," and some years ago "Snipes" were used with good effect in expeditions among the mountains of Iraq. Then the explanation dawned upon us. The correspondent (or was it a sub-editor?) was very conscientious. He started, evidently, by confusing No. 39 with No. 29, but, being ambitious for accuracy of detail, he looked up No. 29 in the *Air Force List*, noted that they were equipped with "Bulldogs," but overlooked the fact that they are stationed at North Weald, and filled in his message with what Pooh Bah would have called "corroborative detail intended to give an air of verisimilitude to an otherwise bald and unconvincing narrative."

At any rate, if the Bajauris and Mohmands do not reform their ways they will soon learn what the "Wapitis" and "Harts" can do to them. This is what is known at Geneva as "police bombing." Invariably warnings are first dropped, and by now most Pathan tribesmen know that after such warnings it is wise to evacuate their villages. Of course, the men will clear out as well as the women and children, and the targets left for our bombers will be only empty buildings of stone. Crops will be growing, but will be too wet to burn in the monsoon time. Incidentally it is now intensely hot in the Frontier valleys in between the monsoon showers, but by choosing the proper altitude a very pleasant temperature can be obtained. Except for the probability of getting wet, for which caves are a good remedy, the evacuated villagers will suffer no hardships during their camping and hiking holiday. The gallant Indian troops will suffer all the hardships as they move across the low lands, hampered by flooded rivers and sleeping on very wet ground. The troops, of course, will be praying that the aeroplanes will not force the Bajauris to surrender before they can get a little fighting to compensate for their hardships.

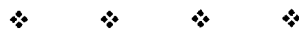


Very opportunely this little outbreak of police bombing had been preceded a few days before by an address by Lord Londonderry to the Parliamentary Air Committee. The Secretary of State for Air said with emphasis that it was quite untrue that the British reservation on police bombing had influenced in any way the attitude of other Powers at the Disarmament Conference. This is interesting, for the contrary had been stated with some confidence in responsible London newspapers, and at least one leading organ of sober opinion had called on the British Government to surrender this invaluable weapon in order to save the Disarmament Conference from failure. That Conference is doomed in any case, so far as actual disarmament is concerned, though it may still do useful work, if it will, by saving civilians, and also combatants, from the worst horrors of war.

Of course it is ludicrous to suggest that Great Britain should give up the use of the air bomb, whereby the lives of many of our soldiers may be saved. Great emphasis is often laid on the lightness of the casualties suffered by the enemy tribesmen when air bombing is used, but after all, the lives of our own soldiers and sepoys are more important to

us than the lives of the enemy, and if the "Wapitis" and "Harts" put an end to the resistance of the Bajauris before the column has got to grips with them, the lives of a number of our men may be saved. The soldiers themselves may fume at such an outcome, but their families can only rejoice.

Lord Londonderry had another interesting fact to lay before the Parliamentary Air Committee. He pointed out that of the 60 or so nations represented at Geneva, only about a dozen had any air forces. Air disarmament was not unnaturally quite a popular theme with people to whom it would mean no sacrifice at all. They would much prefer to see Great Britain and France and Italy disarm in the air rather than have to set up air forces themselves. To all such peoples we offer the advice "Buy British."



Another opportune event of the week is the appearance of a second edition of that very valuable book *Air Power and War Rights*, by J. M. Spaight. It is very satisfactory to see that such a book has arrived at a second edition, and it is particularly fortunate that Messrs. Longmans have produced this edition at this particular moment when the thoughts of so many are turning to the subject of air bombardment, and when there is so much well-meant but very muddled thinking on the subject.

A Book to Study

Far too many people believe that in the last war practically no rules were kept, and that in the next war none will be kept. Mr. Baldwin, unfortunately, has been so unwise as to godfather this view. Then, again, far too many people think that air power will be used in the next war for unrestrained attack on civil populations, and also that such attacks must be completely successful. We have rejoiced to see this view challenged by Mr. Winston Churchill, and by the reformed and very sensible Air League, but it is as hard to catch up an incorrect impression as it is to catch up a deliberate lie. A discussion has been going on lately in the Press between Maj. Yeats-Brown (author of *Bengal Lancer*) and Mr. Beverley Nichols on the subject of Pacifism, in which both seem to accept this view of air power. Maj. Yeats-Brown, who acted as an air observer in Iraq during the war, but can hardly be called on that account an authority on the subject of air power, has written "I do not think that the bombers available at a given moment to any nation could destroy more than one city at a time." Could they do even that? It would take much to convince us that they could. Maj. Yeats-Brown goes on to speak, with greater sense, of "the probable retribution which would be exacted by our Air Force."

All thinkers who grapple in the dark with these problems of air power, from the Geneva delegates upwards, should spend a few hours in a careful study of Mr. Spaight's book. There they will find knowledge and fact to replace their own hazy imaginings. They will learn that belligerents have rights, and it is only those rules which try to deprive them of such rights that are certain to be disregarded. "Rules," writes Mr. Spaight, "regulating and restricting bombing, but not prohibiting it absolutely, are likely, in the writer's opinion, to be honourably observed by civilised States." It is on such lines that real progress can be made.

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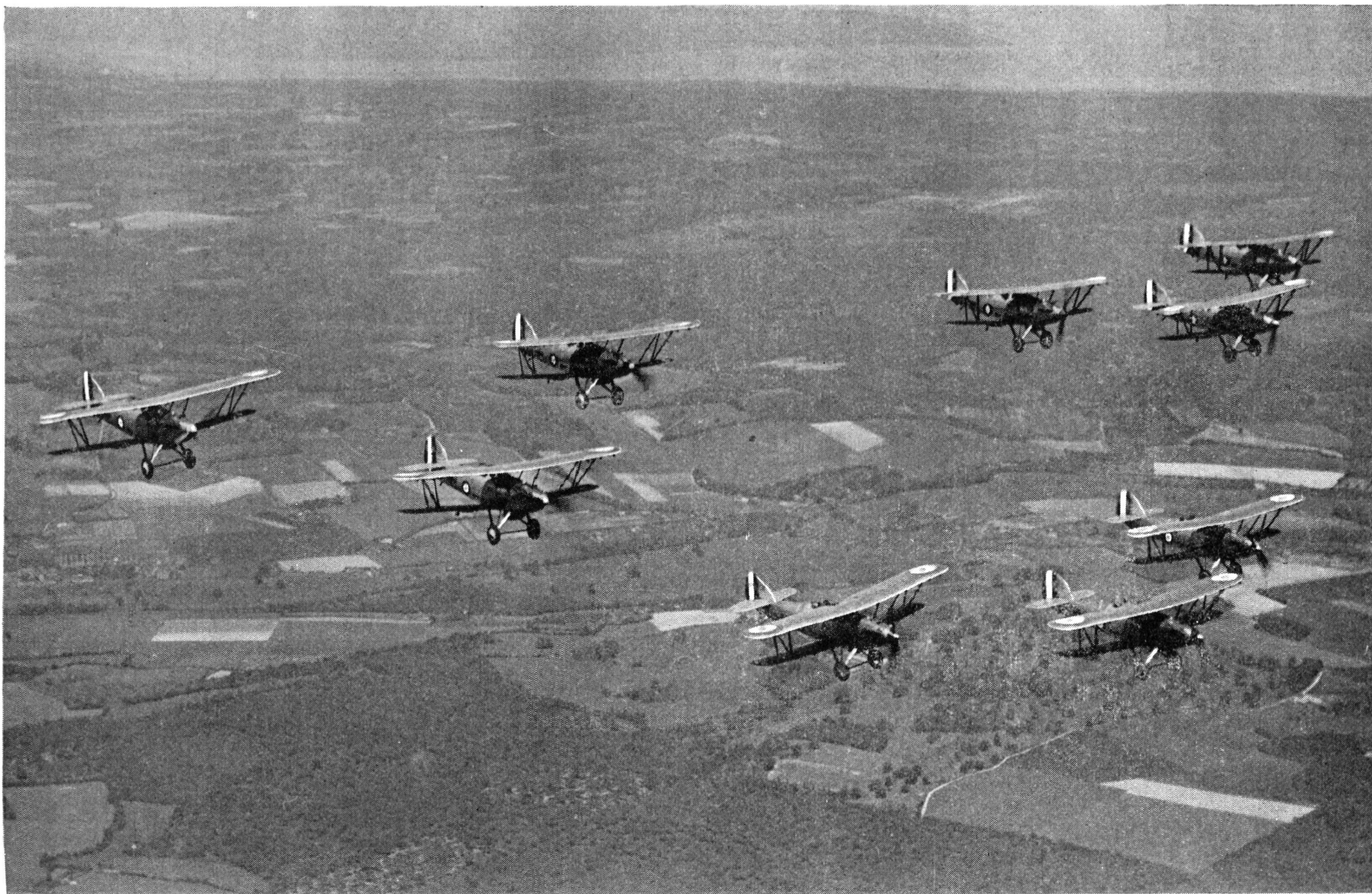
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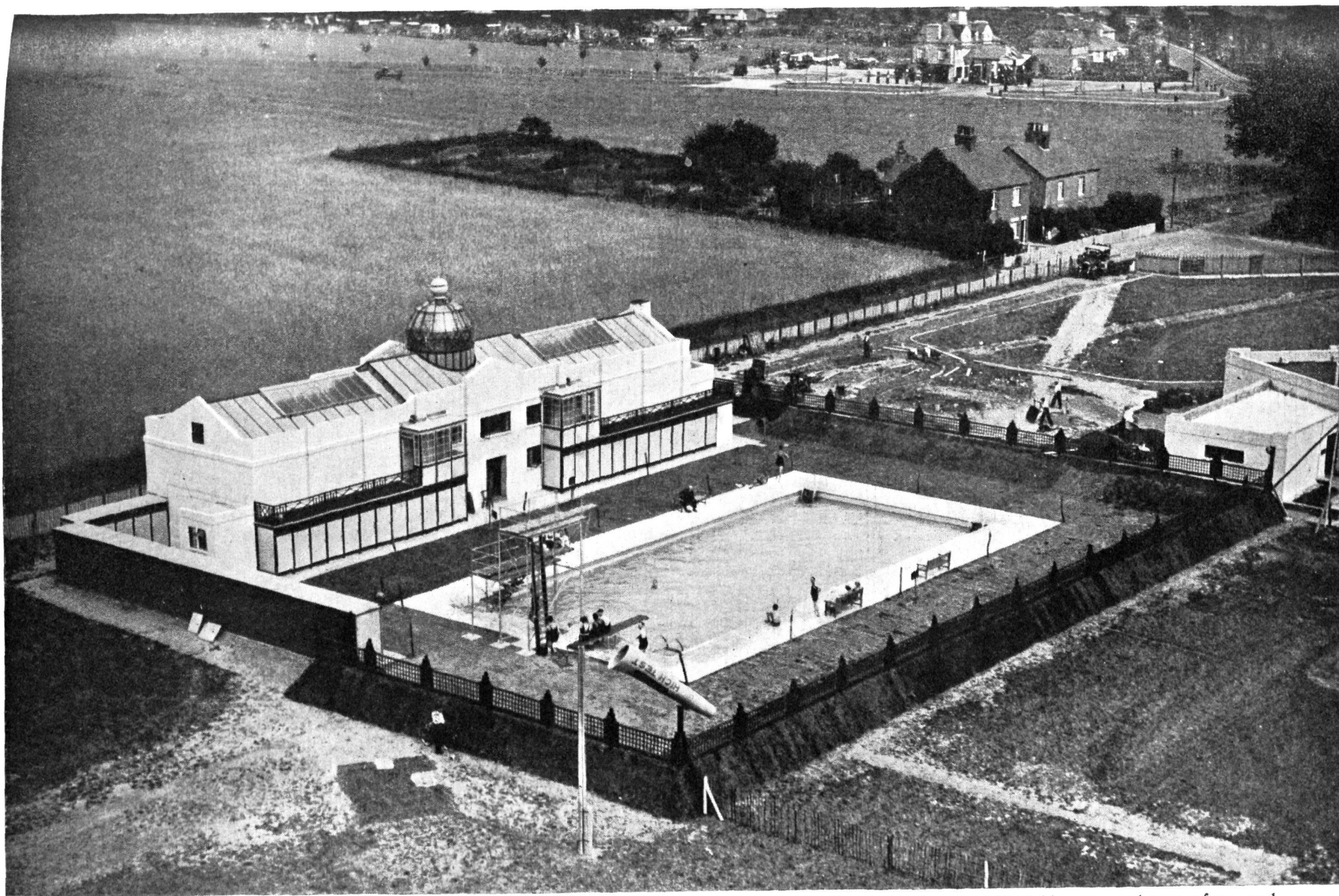
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DAY BOMBERS : No. 33 (Bomber) Squadron in Squadron Formation. The Machines are Hawker "Harts" with Rolls-Royce "Kestrel" Engines.
(*"Flight" Photo.*)

Advt.



EVAPORATIVE COOLING: During the recent heat wave the swimming pool at the De Havilland Aerodrome at Hatfield was a welcome refuge, and water-cooling was a popular alternative. (*FLIGHT Photo.*)

THE ENGLAND—AUSTRALIA RACE

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O PEN to competitors of any nationality, and with no limitations on engine power, the London-Melbourne race which is being organised in connection with the Melbourne Centenary Celebrations should attract a considerable number of entries from all over the world. The prizes for the race total more than £12,000 and the race will be known after the donor of the prizes as the *MacRobertson International Air Race*. In addition to this, and to be flown concurrently, will be held a handicap race, to be known as the *MacRobertson International Handicap Race*. The two races may be distinguished shortly as the "Championship Race" and the "Handicap Race" respectively. The former is a speed race pure and simple, while the latter is, as the title implies, a handicap.

For the "Championship Race" the first prize is one of £10,000 and a gold cup valued at not less than £500. Second prize is of £1,500, and third prize of £500.

The prizes in the "Handicap Race" are a first prize of £2,000 and a second prize of £1,000.

The date provisionally fixed for the start is October 20, 1934. The races will start from England, and the intention is to start competitors from aerodromes situated as nearly as possible equidistant from Baghdad. Presumably this is to avoid crowding at any one aerodrome at the start. For the "Championship Race" the entrance fee is £50 per machine, and for the "Handicap Race" £10. Where a machine is entered for both races, the fee is £50. Entries close at 12 noon on June 1, 1934. Entries must be in the hands of the Secretary, Centenary Council, Town Hall, Melbourne, Australia, by that time, or those who prefer may send their entries to the United Kingdom Representative of the Centenary Council, c/o Defence Liaison Officer (Air), Australia House, Strand, London, England.

Following are extracts from the regulations applying to both races: Entries must be made on the approved forms, and the information asked for on the forms must be correctly and fully given. There is no limit to the numbers of the crew, "crew" including in this case passengers. No new personnel may be embarked during the race. Each machine must carry sufficient food and water to maintain life for three days, and approved flotation gear for the pilot and each member of the crew, in addition to not less than six smoke signals. Each machine shall have a certificate of airworthiness of its parent nation, and shall comply with the conditions thereof during the

race. The following instruments must be carried: Compass, turn and bank indicator, drift indicator, altimeter, and adequate maps, charts, aerodrome plans and locations.

More than one pilot may be used, but the pilot who is in charge at the beginning of the race must pass the finishing line in the same machine in which he started. Pilots will be required to report, with their machines fully erected, to the representative in England at the starting point designated, seven clear days before the day of the start. The authorised official will affix a seal to the engine and a seal to the airframe at least 24 hr. before the start, and these two seals must remain unbroken during the race. Refueling in the air and night flying are permitted.

The Route

Competitors in the "Championship Race" will be required to check in at the following aerodromes: Baghdad, Calcutta, Singapore, Darwin, and Charleville. At these control points pilots will be required to present their log books to the authorised control official.

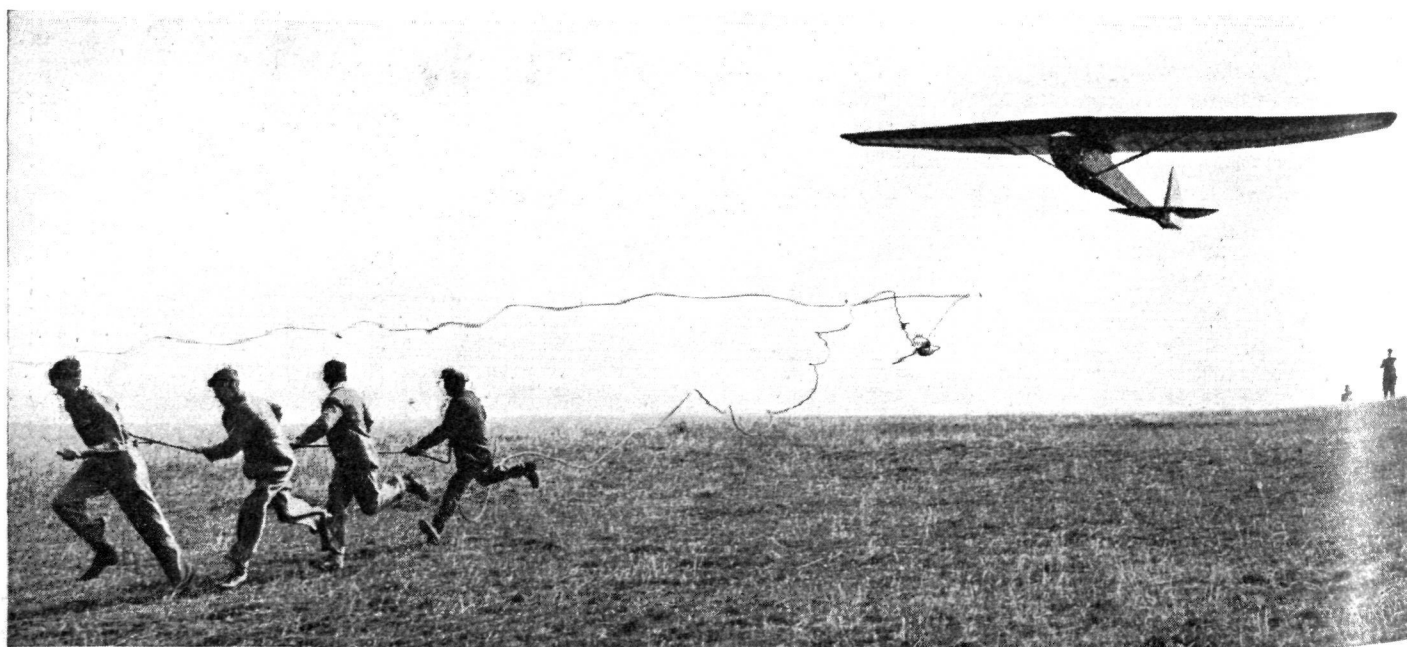
For the "Handicap Race" the course will be exactly the same, but in addition to the control points mentioned above, there will be checking points established at intervals of approximately 500 miles along the route. In the "Handicap Race" competitors will be required to have entered in their log books the times of arrival at, and departure from, the checking points. This is in order that the time spent there may be deducted from the flying time. Landing at checking points is not compulsory, but landing at control points is.

Handicaps will be based on a formula, the details of which have not yet been made public, but pay load will play a part, and the pay load at the finish must agree with the log book entry and conform to the declared pay load throughout the race.

The C. of A. for the "Handicap Race" must be in the "normal" category of the parent nation of the machine.

As far as possible, meteorological information will be supplied at control and checking points, but competitors must make their own arrangements for obtaining fuel, victuals, spares and accommodation.

In order to guard against the races being leisurely tours, a time limit of 16 days has been set. Any machine which fails to complete the course within that period will be disqualified.



GOING AFTER THE BRITISH RECORD: On July 29 Flt. Lt. E. L. Mole, R.A.F., remained aloft for 6 hr. 55 min. on the *Willow Wren* glider designed and built by Mr. Manuel, late Corporal, R.A.F. The flight took place in the region of Tottenham, Dunstable.



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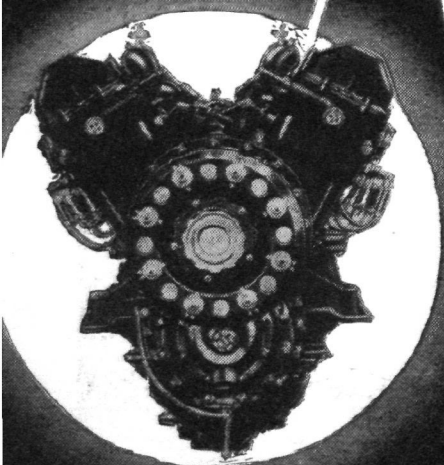
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No. 99 (Bomber) Squadron

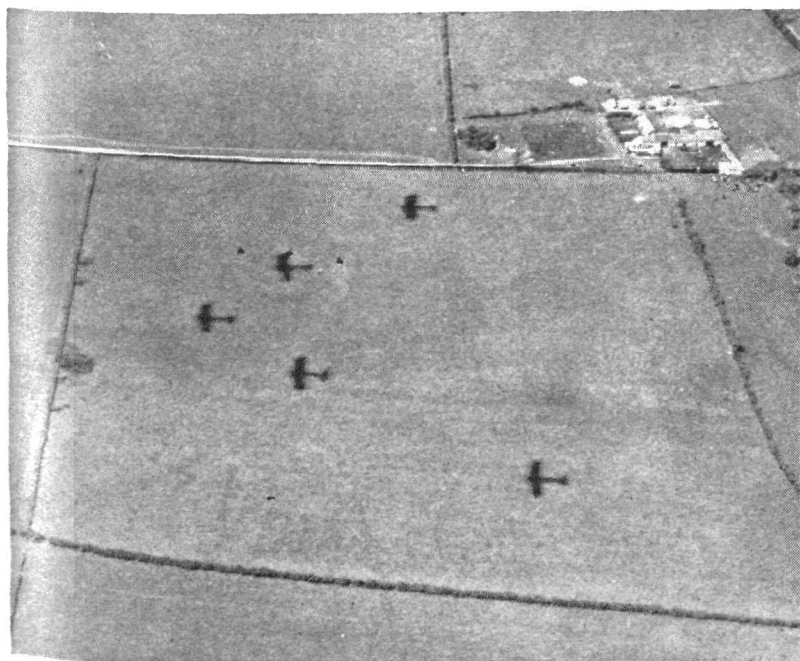
By MAJOR F. A. de V. ROBERTSON, V.D.

THE Air Force historian of the future will find a pretty problem in the evolution of No. 99 Squadron. If continuity of existence is the thing which matters, the old No. 99 Squadron which belonged to the Independent Air Force and did mighty deeds of valour while bombing military objectives at Mainz, Mannheim and other German towns with its D.H.9's, is now represented by No. 27 (Bomber) Squadron, which is stationed at Kohat and from there patrols the North-West Frontier of India with its "Wapitis." In May, 1919, the original No. 99 Squadron, instead of being disbanded as so many squadrons were, left France for India, and in April, 1920, it was re-numbered as No. 27. Presumably the personnel of the squadron was not entirely

changed at that moment, and in all probability many officers and men remained on who felt all their loyalty go out to the number 99. The personnel of R.A.F. squadrons is as volatile as that of ships of the Royal Navy, and allegiance to the squadron to which one belongs for the moment cannot be as deep a feeling as the love of an Army man for his regiment. The advantage probably is on the side of the Navy and the Air Force, as love for a Service is a better thing than love for one's corps. None the less, officers and men now posted to No. 27 (Bomber) Squadron must like to feel themselves the successors of the gallant souls whom Maj. L. A. Pattinson led out to bomb Mannheim in 1918.

Officially, however, the view seems to have been taken that it was the number which counted, and so for four years there was no No. 99 Squadron, until it was re-formed at Netheravon in April, 1924, as a night-bombing squadron. The re-formed unit certainly claims as its ancestors the men of the old No. 99, who may therefore be regarded as having left their traditions to two of the present units of the Royal Air Force.

No. 99 (Bomber) Squadron now is stationed at Upper Heyford, a few miles out of Oxford. It is equipped with Handley Page "Hinaidis," each driven by two geared Bristol "Jupiters" mark 8F. Both these statements are only true for the moment. The squadron will probably move elsewhere in the not distant future. Upper Heyford also accommodates two squadrons of day bombers, Nos. 18 and 57, both equipped with "Harts," and it would seem convenient if it were made a homogeneous station composed of three squadrons of "Harts." No. 99 B.S. would be more suitably accommodated at a station where

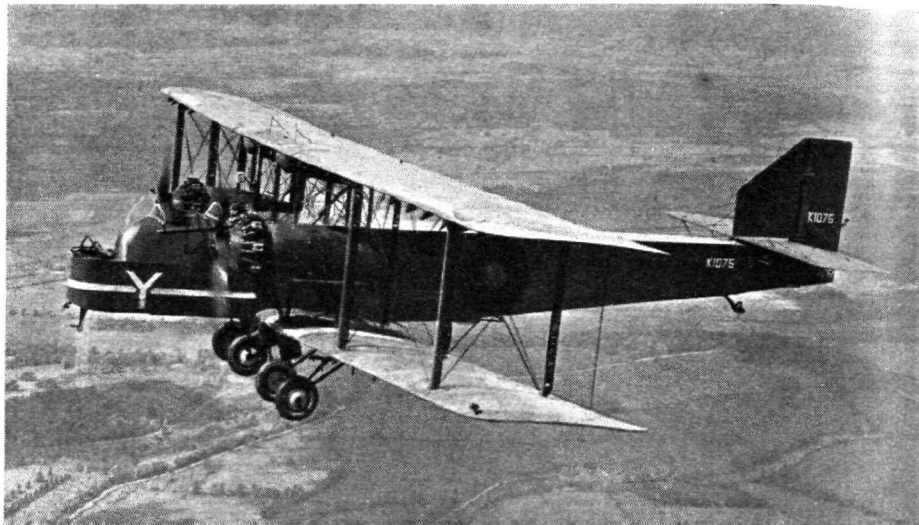


THE UNDERSTUDIES: The earthly trail of No. 99 (Bomber) Squadron. (FLIGHT Photo.)

SINISTER : A Handley Page "Hinaidi" night bomber with two Bristol "Jupiter" engines, belonging to No. 99 (Bomber) Squadron at Upper Heyford. (FLIGHT Photo.)

there were other squadrons of night bombers. The present equipment of "Hinaidis" is also fated to be changed, and that soon. This squadron has been selected as the first night-bomber unit to receive the new Handley Page "Heyford" (two Rolls-Royce "Kestrels"). If the re-equipment takes place before the move, as seems likely, care will have to be taken to distinguish between "Heyford" and Upper Heyford. "Hinaidis" were never made standard equipment at Hinaidi, and so that source of possible confusion was avoided, but there are drawbacks to the practice of naming an aeroplane after a station. Does Mr. Handley Page, we wonder, intend to produce a "Hornchurch" or a "Hucknall"? When No. 99 has quite done with its "Hinaidis," they may perchance be handed over to No. 503 (County of Lincoln) (Bomber) Squadron, which is still hanging on to the last of the "Hyderabad."

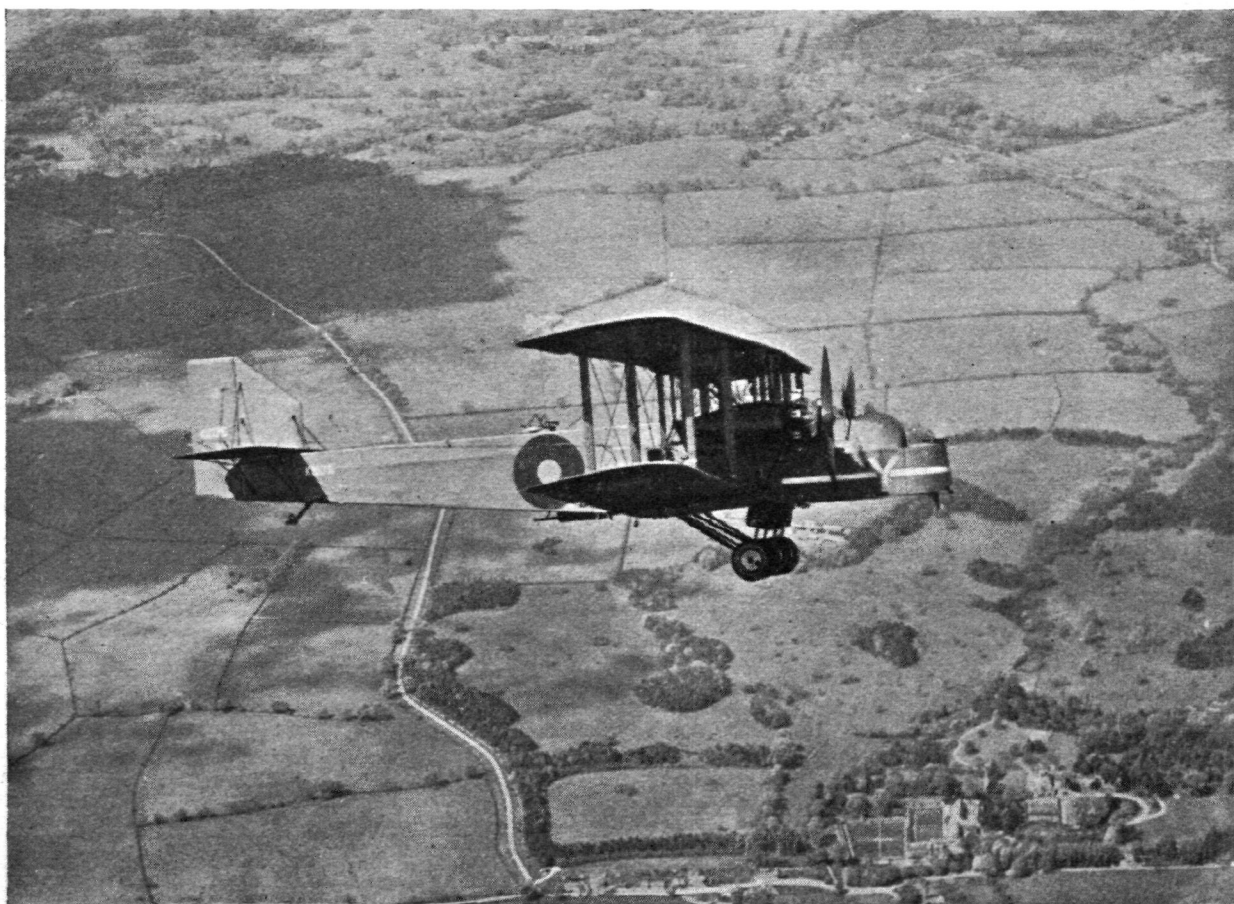
No. 99 Squadron, R.F.C., was formed at Yatesbury in August, 1917, from a nucleus provided by No. 13 Training Squadron. After forming, it moved to Ford Farm, near Salisbury, and proceeded to get itself into proper squadron shape. In March, 1918, the command of the squadron was taken over by Maj. L. A. Pattinson, who continued to lead it until September, 1918, when he was given command of the 41st Wing. He is now a Group Captain, holds the decorations D.S.O., M.C., D.F.C., and is Air Aide-de-Camp to H.M. the King. His present appointment is Deputy Director of Organisation at the Air Ministry. He has also written a history of the squadron which he commanded so gallantly. The squadron proceeded overseas in April 1918, so that it was one of the few squadrons which belonged to the newly-formed Royal Air Force before it first crossed the lines. The machines which it flew



were D.H.9's, but in September, 1918, it commenced to re-equip with the D.H.9.A with 400-h.p. "Liberty" engine. The total complement of new machines was not received until after the Armistice had been signed.

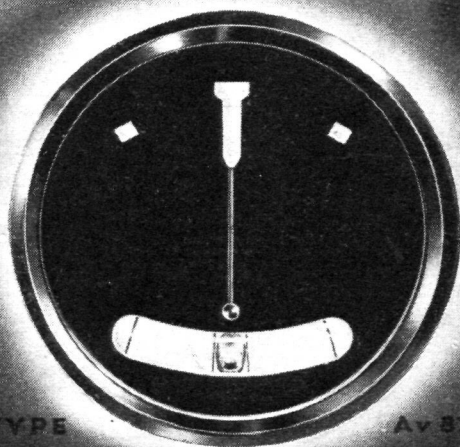
On crossing the Channel the squadron, as was usual, first landed at St. Omer, where it remained for about a week. It then flew on to Tantonville. In June it moved to Azelot, where it remained until after the Armistice. In the six and a-half months of its active service the squadron made 76 bombing raids and dropped over 61 tons of bombs. Of all the machines which started on raids, over 79 per cent. bombed the objectives. The D.H.9's usually had to fight their way to their objectives, and likewise had to fight their way home again, and in the course of these fights they destroyed 12 enemy aircraft and sent down seven more out of control. This is a very good

A STEEP BANK : The earth is not really standing up on end. This "Hinaidi" was in a steep bank when our photographer took it from another machine above. (FLIGHT Photo.)

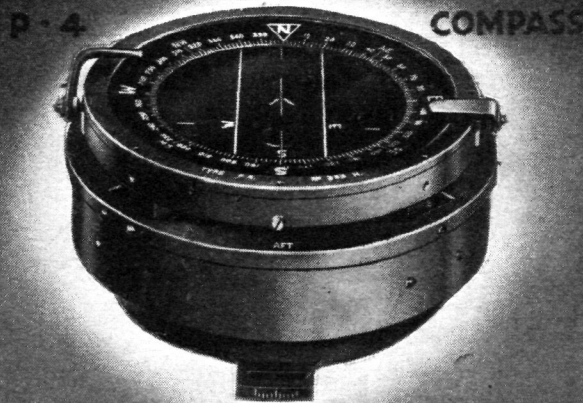




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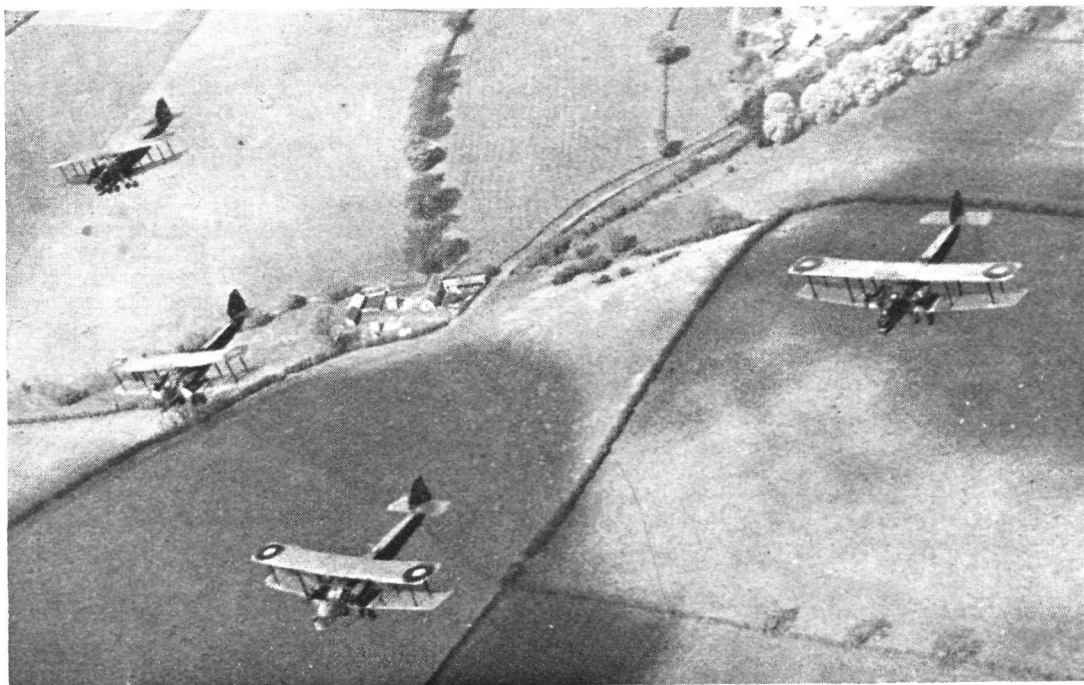
record for bombers who had to tackle enemy fighters and were usually outnumbered by the enemy. This result was achieved at a cost to the squadron of five killed in action, 20 missing, presumed dead, 16 wounded in action and 24 taken prisoner. The losses of the squadron would have been far heavier, and its work would have been far less effective, but for the splendid leading of Maj. Pattinson and his flight commanders. Still the losses were sometimes very heavy. In a raid on Mainz on July 31, 1918, nine machines started and only two came back. On September 26 seven machines set out for Metz-Sablons, and only one returned.

We extract the following from a Despatch by Maj. Gen. Trenchard, commanding the Independent Air Force. "On September 7, 11 machines of No. 99 Squadron, followed by 10 machines of No. 104 Squadron, made an almost simultaneous attack on Mannheim, where bombs were dropped with excellent results on the Badische Anilin und Soda Fabrik. No. 99 Squadron obtained at least eight direct hits on the factory, but the results of No. 104 Squadron could not be observed owing to the mist and smoke. Both squadrons were attacked on the outward and return journey and over the target by superior numbers of hostile aircraft. The formation of No. 99 Squadron was led by Col. (then Maj.) L. A. Pattinson, and the formation of No. 104 Squadron by Capt. R. J. Gammon. No. 99 Squadron was attacked by six hostile machines 15 miles over the lines. These were driven off. Ten hostile machines attacked about 15 miles over the lines. These were also driven off. Fifteen hostile machines then

attacked over the objective. After dropping bombs the formation turned towards the hostile machines, which apparently disconcerted them, as they became scattered. On the return journey several enemy scouts kept up a running fight; one scout attacking from in front was driven off by the leader's observer firing over the top plane."

For this feat, following on many others, Maj. Pattinson, who already held the Military Cross, was awarded the Distinguished Flying Cross. The extract from the *London Gazette* of November 2, 1918, reads: "This officer is not only a capable and most efficient Squadron Commander, but also an exceptionally fine leader of bombing formations. On September 7 he led a combined formation of 22 machines; they were attacked by some 30 aircraft, who made the most determined effort to prevent our formation reaching their objective. By skilful leadership and manœuvring Maj. Pattinson repulsed the attack and dispersed the enemy formation. Leading well over the target, excellent results were obtained."

Another extract from the *London Gazette* awards the Distinguished Flying Medal to Sgt. Observer Frederick Lee: "During a recent long-distance bombing raid the formation to which Sgt. Lee belonged was attacked when over the objective by 20 enemy scouts. He engaged one of them with his double gun, which caused the enemy to turn over on his back, and after various gyrations the pilot fell out of the aeroplane. This N.C.O. has proved himself a gallant and skilful observer, and in all respects a most reliable man in the air."



ON A LONG RAID: Night bombers work singly at night, but on a long raid by day these Handley Page "Hinaidis" fly in formation. (FLIGHT Photo.)

Royal Air Force Squadrons

Other descriptive articles concerning the work of various R.A.F. Squadrons, etc., have been published in FLIGHT as follow:—

H.M. Aircraft Carrier *Glorious*. May 16, 1930.
No. 4 (Army Co-operation), South Farnborough; No. 17 (Fighter), Upavon, and No. 33 (Bomber), Eastchurch. June 27, 1930.
No. 601 (County of London) (B.) Sq., A.A.F. (at Lympe). August 15, 1930.
No. 43 (Fighter) Sq. (Tangmere). September 19, 1930.
No. 2 (Army Co-operation) Sq. (Manston). December 19, 1930.
No. 101 (Bomber) Sq. (Andover). April 24, 1931.
Nos. 204 and 209 (Flying-Boat) Sq. (Mount Batten). June 12, 1931.
"1890-1912-1931." (An Outline of the Growth of the R.A.F.) June 26, 1931.
Cambridge University Air Sq. (at Old Sarum). July 10, 1931.
Central Flying School (Wittering). July 17, 1931.
Submarine Aircraft Carrier "M 2." July 31, 1931.
Oxford University Air Sq. (at Eastchurch). August 7, 1931.

No. 600 (City of London) (Bomber) Sq., A.A.F. (at Tangmere). August 21, 1931.
No. 605 (County of Warwick) (Bomber) Sq. (Cas. Bromwich). April 1, 1932.
No. 40 (Bomber) Sq. (Upper Heyford). May 13, 1932.
Nos. 7 and 58 (Bomber) Sq. (Worthy Down). June 10, 1932.
A visit to H.M.S. *Exeter* of 2nd Cruiser Squadron, Home Fleet. June 17, 1932.
Oxford University Air Sq. (Eastchurch). July 22, 1932.
Cambridge University Air Sq. (Netheravon). August 5, 1932.
No. 1 Air Defence Group (A.A.F. and Cadre Sqs.). August 12, 1932.
No. 100 (Bomber) Sq. (Donibristle). August 19, 1932.
Scotland's Auxiliaries; No. 602 (City of Glasgow) (Bomber) Sq. and No. 603 (City of Edinburgh) (Bomber) Sq. September 16, 1932.
London's Auxiliaries; Nos. 600, 601, and 604 B. Sq. October 20, 1932.
No. 25 (Fighter) Sq. (Hawkinge). December 8, 1932.
No. 19 (Fighter) Sq. Duxford. January 5, 1933.
Aircraft Carrier H.M.S. *Courageous*. January 12, 1933.
Lee-on-Solent. February 9, 1933.
No. 23 Fighter Squadron. March 2, 1933.
Gosport. The Fleet Air Arm Base. March 30, 1933.
Larkhill. R.A.F. Balloon Centre. June 8, 1933.
The R.A.F. Staff College, Andover. July 20, 1933.

Air Transport

AIR SERVICES IN THE BRITISH ISLES

FOR some years past it has been the fashion, among those well versed in civil flying and its difficulties, to accept the dictum that internal airlines in Great Britain would never be of much account, firstly as the weather was generally "impossible" and secondly because the already well-established ground transport lines

warranted investigation from an air transport point of view. In June, 1930, Imperial Airways started running from Liverpool, via Manchester and Birmingham, to Croydon. They didn't keep it up very long. They, for their part, did as much as anyone could have done; they got through when the weather was really "impossible," but at the end



Avro "Avian" ("Hermes II") two seater.

were far too efficient to allow aircraft to compete with them. Undoubtedly there was, and still is, a very great deal to be said for those who hold these views, but where they are wrong, as is so often the case, is in making a sweeping generalisation covering the whole of our islands. Of course, no one in their senses will, under the present conditions, try to compete with the railways over a journey between, for example, London and Birmingham. It takes almost as long to get from London out to one of its aerodromes and from Birmingham to Castle Bromwich Aerodrome as it does to do the whole railway journey, and, generally speaking, the trains run to time regardless of the weather—though during the blizzard this year we were kept sitting in that train, without any heating, for 4½ hours before we reached Euston, London! Aircraft are naturally far more dependent on the weather than trains and, as yet, there are no night-flying facilities.

Where the "generalisators" ought to have looked before making their assertions was to the many points where water interferes with the direct rail transport or, in some cases, where the journey is a very "cross-country" one. Had they done so they would long ago have found many places where the amount of traffic fully

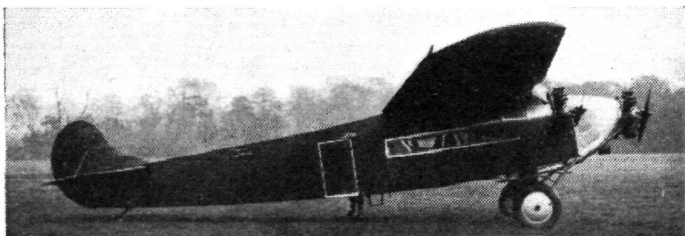


D.H. "Moth" ("Gipsy I") two seater.

of the three months' trial, that being the period for which it was intended to try out the scheme, it was decided that the patronage did not warrant its continuance the following year.

However, their effort and the fact that more and more real business people are beginning to take an interest in flying has at last begun to have some tangible effect. During the last twelve months or thereabouts, quite a large number of air lines have been started, and for the most part they look like continuing to run. The majority are what might more aptly be called the ferry services, that is, they serve districts where, as we have already said, water necessitates a slow journey by boat or a long detour by train.

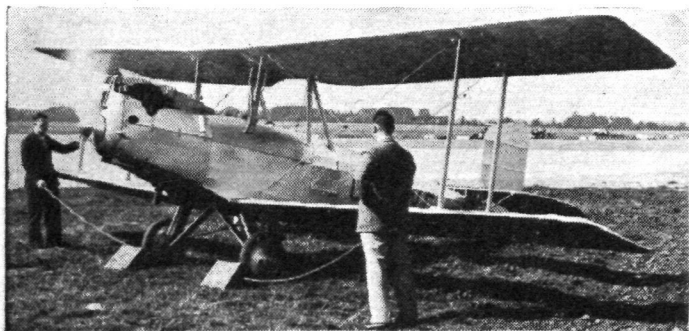
Reference to our map and table will show where the services are now functioning, and it will be seen that they already cover quite a considerable portion of the country. Typical examples of well-chosen routes are the Bristol-Cardiff, Portsmouth-Ryde, and Heston-Cowes. Generally speaking, it will be seen that they are placed where the existing traffic will welcome the new and speedier method



Avro "X" (3 "Lynx") ten seater.



Saro "Cutty Sark" (2 "Gipsy II") four seater.



Blackburn "Bluebird" ("Hermes II").



Desoutter ("Hermes II") three seater. (FLIGHT Photos.)



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Saro "Cloud" (2 "Serval") eight seater.

of transport. Our map also shows a few of the proposed services which may, if trade in general continues to improve at its present rate, be established during the next twelve months. We cannot in an article like this one hope to be exhaustive, and it is probable that there are other services than those we have shown being planned. We sincerely hope so, for then our 1934 edition of this map may perhaps look more like the present one of other European countries.

The second portion of our article deals with the facilities at present available for hiring aircraft for long or short journeys—usually called taxi work. The map, again, is probably the easy method of showing how widespread are the facilities, and the table gives, as far as we have been able to gather it, full information as to the type of aeroplane to be had and the cost of hiring. The prices quoted are those where a pilot is also supplied. In certain cases it is possible to hire aeroplanes and fly them oneself. This raises special problems into which it is impossible to go here, but inquiry at any of the firms listed will always bring a prompt reply as to whether those particular facilities are to be had. The number of firms catering for those who want to hire aircraft has grown just as much as has the number of airline operators, and can surely be taken as evidence of the revival of trade. One of the most important branches of this business is that done for the newspapers. Every day now we see mention in some paper or other of "special photograph, sent by or obtained from, the air," also apart from those fortunate people who can travel regardless of cost when they go for their "quiet" week-ends to Deauville, there is a growing tendency on the part of large firms to send their representatives by air in order that as little time may be wasted on travelling as possible.

It has not been possible for us to include the times of day in our table of the air lines, but those who are desirous of more detailed information should turn to *The Railway, Motor Coach and Air Services Time Table*, summer edition, which we find has an excellent section dealing with our air lines.

Summarising the whole subject, progress of late has been most marked. Small firms like Norman Edgar, running the Bristol-Cardiff Ferry, have in many cases got their toes well in and show every sign of expanding, and the business has become promising enough to interest large concerns like the G.W.R. The Southern Railway, as reported last week, is also investigating the subject, also large transport interests in Scotland, so that we may now safely feel that despite our backwardness we have at last shown signs of getting down to the internal air transport question in earnest.



D.H. "Dragon" (2 "Gipsy Major") six seater.



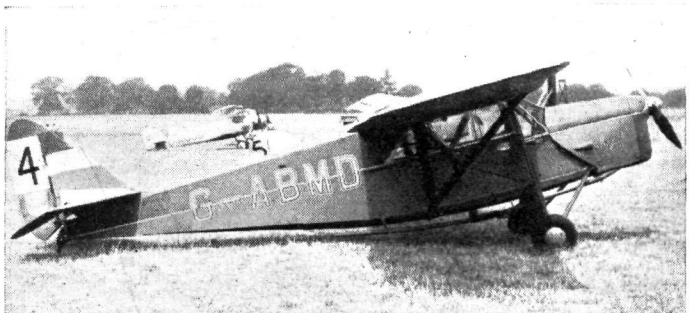
Airspeed "Ferry" (2 "Gipsy III" and 1 "Gipsy II") ten seater.



D.H. "Fox Moth" ("Gipsy III").



Percival "Gull" ("Javelin") three seater.



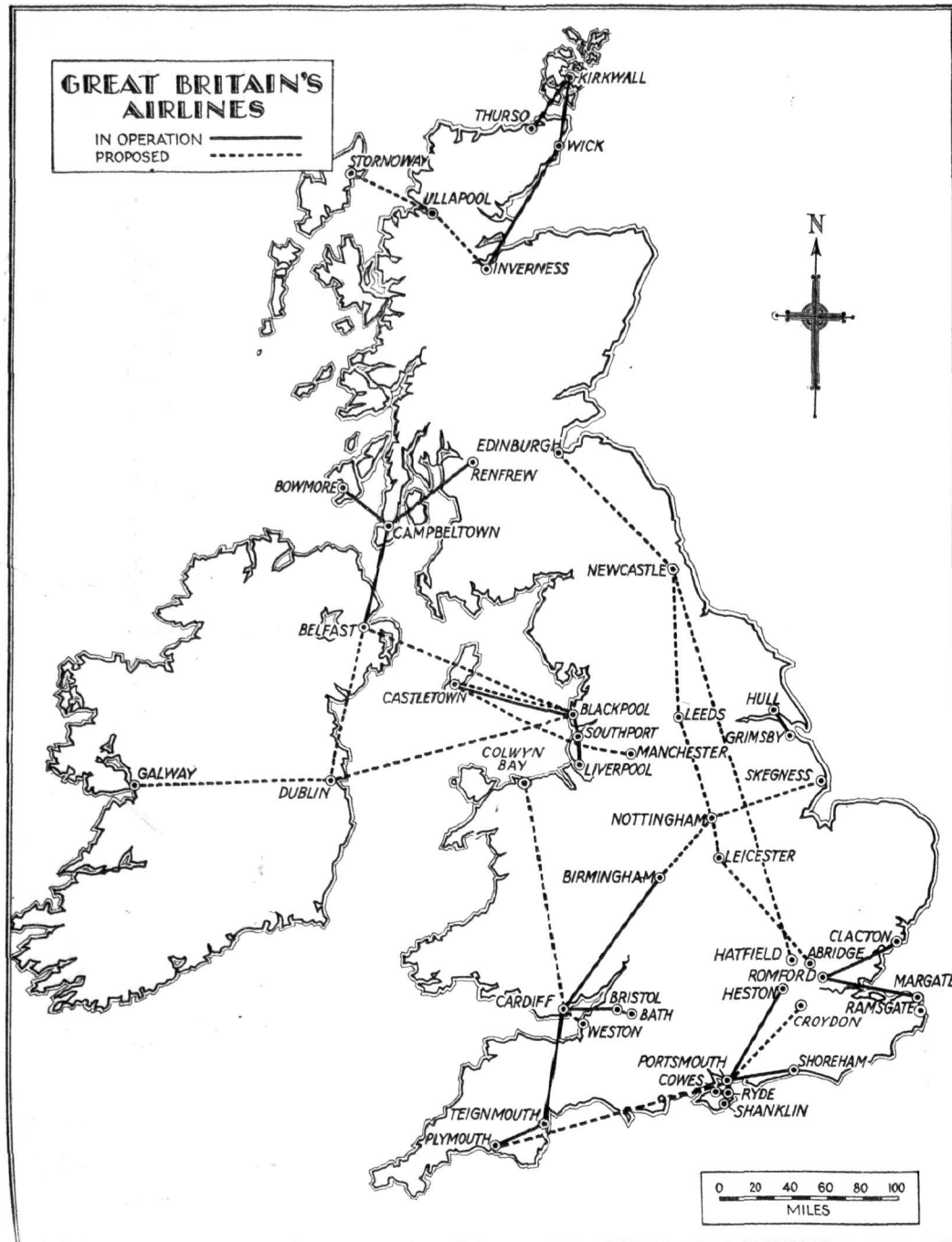
D.H. "Puss Moth" ("Gipsy III") three seater.



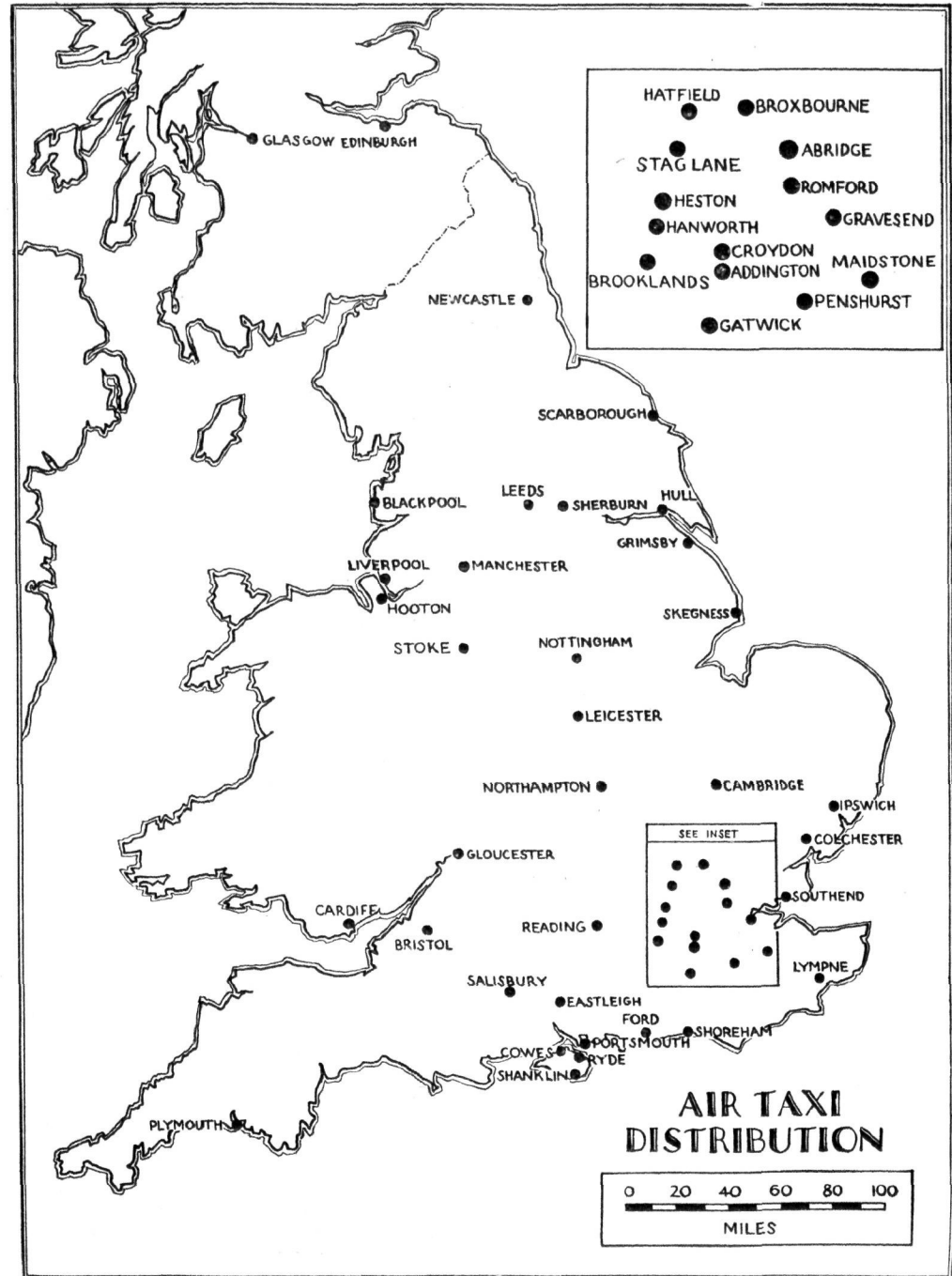
"Monospar" (2 Pobjoy) four seater.

(FLIGHT Photos.)

One other factor, to which we have not yet referred, has had a great deal to do with this growth, and that is the provision of suitable aeroplanes. All the types used have been fully dealt with in our pages, and their large pay load and peculiar suitability for this type of work has been pointed out; we will not, therefore, reiterate their performance now. We have illustrated a representative number of these so that readers will be able to refresh their memories in cases where they are not already users—not in many, we hope!



This map shows how widespread are Great Britain's internal air activities.



Air Taxis may be hired from aerodromes adjacent to all these towns.
(Flight Sketches.)



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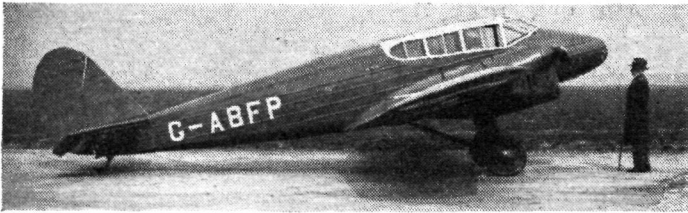
Booking Office		Routes				} 50 min. 19s. (S), 37s. (R)
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(Portsmouth 6689)	Portsmouth	
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(Ryde 333)	Ryde		
Fountain Garage, Ltd. (Cowes 323)	Cowes		
		* General Agents, Imperial Airways, Ltd., Victoria Station, London, S.W.1. (Victoria 2211).					



Segrave "Meteor" (2 "Gipsy III") four seater.



Junkers ("Junker") six seater. (FLIGHT Photos.)

	Aircraft	Rates per Passenger-mile		Aircraft	Rates per Passenger-mile
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BRADFORD—See LEEDS	"Cutty Sark" ..	6d.	IPSWICH Eastern Counties Aeroplane Club, Ltd., Ipswich Airport (Ipswich 3294)	"Fox Moth" ..	4d.
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CARDIFF Norman Edgar (see Bristol)	"Puss Moth" ..	4d.	LIVERPOOL The Liverpool & District Aero Club, Hooton Park, Cheshire (Hooton 149)	"Desoutter" ..	£4/hr.
COLCHESTER Eastern Counties Aeroplane Club, Ltd., Blue Barns Aerodrome (Ardleigh, Colchester 51)	"Fox Moth" ..	—	Midland & Scottish Air Ferries, Ltd., Speke (see Glasgow)	"Moth" ..	—
COWES Spartan Air Lines, Fountain Garage, Cowes (Cowes 323)	"Puss Moth" ..	9d./mc.	LONDON ABRIDGE Commercial Airways (Essex), Ltd., Loughton Aerodrome, Abridge, Essex (Theydon Bois 224) "Air Routes, London"	"Puss Moth" ..	6d./mc.
EDINBURGH The Scottish Motor Traction Co., Ltd., East Fountainbridge, Edinburgh 3 (Edinburgh 24031) "Traction, Edinburgh"	"Moth" ..	6d./mc.	ADDINGTON British Air Transport, Ltd., Lodge Lane, Addington, Surrey (Biggin Hill 150)	"Moth" ..	—
FORD (Littlehampton & Bognor) South Downs Aero Club, Yapton, Sussex (Yapton 222)	"Cruiser" ..	—	BROOKLANDS Brooklands Airways, Ltd., Byfleet, Surrey (Byfleet 436) "Aviation, Byfleet"	"Spartan 3-str." ..	9d./mc.
GATWICK Redwing Aircraft Co., Ltd., Lowfield Heath, Crawley, Sussex (Crawley 321) "Redwing, Lowfield Heath"	"Spartan 3-str." ..	—	BROXBOURNE The Herts & Essex Aeroplane Club, Broxbourne Aerodrome, Herts (Hoddesdon 453)	"Moth" ..	—
GLASGOW Midland & Scottish Air Ferries, Renfrew Aerodrome (Renfrew 13) The Scottish Flying Club (Renfrew 191)	"Dragon" ..	2s. 3d./m./mc.	CROYDON Croydon (Airport of London) Air Taxis, Ltd. (Fairfield 5346) British Air Transport, Ltd. (Fairfield 4111) Imperial Airways, Ltd. (Croydon 2046) Rollason Aviation Co., Ltd. (Fairfield 6186) Surrey Flying Services, Ltd. (Croydon 3421)	"Junkers F.12" ..	1s. 3d./mc.
GRAVESEND Gravesend Aviation, Ltd., Gravesend, Kent (Gravesend 1400)	"Fox Moth" ..	1s./m./mc.	FELTHAM (Hanworth) National Flying Services, Ltd., Hanworth Park (Feltham 236) Empire Air Services (Feltham 236)	"Puss Moth" ..	1s. mc.
GRIMSBY Eason's Booking Office, 1, Old Market Place, Grimsby (Grimsby 2606) "Eason's Grimsby"	"Tiger Moth" ..	—	HATFIELD The de Havilland School of Flying, Hatfield, Herts (Hatfield 250) "Moth, Hatfield"	"Hawk Moth" ..	6d. person
	"Cadet 3-str." ..	—	HESTON Birkett Air Service, Ltd., Brian Lewis & Co., Ltd. The British Air Navigation Co., Ltd. (Hayes 410—for all companies)	"Spartan 3-str." ..	9d./mc.
	"Desoutter" ..	—	ROMFORD Hillman's Airways (Romford 1700), London Road, Romford	"Wessex" ..	—
	"Redwing" ..	9d.	STAG LANE Air Taxis, Ltd. (Edgware 0234) (See Croydon)	"Desoutter" ..	1s. 3d./mc.
	"Dragon" ..	—	LYMPNE Cinque Ports Flying Club (Hythe 6123) Lympe Aerodrome, Kent	"Moth" ..	1s./mc.
	"Avro X" ..	—	MAIDSTONE Maidstone Aero Club, West Malling, Kent (West Malling 191)	"Puss Moth" ..	8d./mc.
	"Fox Moth" ..	—	MANCHESTER Airwork, Ltd., Air Port of Manchester (Eccles 1873)	"Fox Moth" ..	—
	"Puss Moth" ..	1s./m./mc.		"Moth" ..	—
	"Moth" ..	9d.		"Fox Moth" ..	1s. 1 pass.
	"Fox Moth" ..	3d.		"Moth" ..	1s. 24d. 2 pass.
	"Moth" ..	6d./mc.			



Spartan "Cruiser" (3. "Hermes IV") six seater. (FLIGHT Photo.)



Spartan "3-Seater" ("Gipsy II"). (FLIGHT Photo.)

	Aircraft	Rates per Passenger-mile.
NEWCASTLE The Newcastle-upon-Tyne Aero Club, Ltd., Cramlington Aerodrome, Northumberland (Cramlington 9)	"Moth" ..	1s./mc.
NORTHAMPTON Northampton Aero Club, Sywell Aerodrome, Northampton (Moulton 33)	"Moth" ..	£3 10s./hr./mc.
NOTTINGHAM Nottingham Flying Club Tollerton Aerodrome, Notts (Plumtree 41)	"Moth" .. "Desoutter" ..	£4/hr./mc. "
OXFORD Universal Aircraft Services, Ltd., Witney Aerodrome (Witney 170)	"Bristol" "Avian" "Avro"	1s. 6d./mc. 1s./mc. 6d.
PENSHURST Air Travel, Ltd., Penshurst Aerodrome, Kent (Penshurst 10) (Agents for Brooklands Airways)		
PLYMOUTH Surrey Flying Services, Ltd., Roborough Aerodrome	"Puss Moth" .. "Moth" ..	— —
PORTSMOUTH Portsmouth, Southsea & Isle of Wight Aviation, Ltd. (Portsmouth 6689) "City Airport, Portsmouth"	"Wessex" "Puss Moth" "Spartan 3-str." "Klemm"	9d. 1 pass. 1s. 2 pass. 1s. 3d. 3 pass. "
READING Phillips & Powis Aircraft (Reading), Ltd., Woodley, Reading (Sonning 114)	"Desoutter" .. "Puss Moth" ..	9d. 1 pass. 1s. 2 pass.

	Aircraft	Rates per Passenger-mile
RYDE Portsmouth, Southsea & Isle of Wight Aviation, Ltd. (Ryde 333) "Isle of Wight, Airport"	(See Portsmouth)	—
SALISBURY The Wiltshire School of Flying & County Club, Ltd., High Post Aerodrome, Salisbury, Wilts (Middle Woodford 23)	"Redwing" .. "Spartan" .. "Puss Moth" ..	6d. 1 pass. 6d. 1 pass. 6d./pass.
SCARBOROUGH The Scarborough Aero Club Co., Ltd., Ganton Aerodrome, East Hesterton, Yorks (West Hesterton 11)	"Spartan 3-str."	1s./mc.
SHANKLIN Portsmouth, Southsea & Isle of Wight Aviation, Ltd. (Shanklin 324) "Apse, Airport"	(See Portsmouth)	—
SHOREHAM-BY-SEA Southern Aircraft, Ltd. (Shoreham-by-Sea 168)	"Avian" ..	—
SKEGNESS Skegness & E. Lincolnshire Aero Club, The Aerodrome, Skegness (Skegness 413)	"Fox Moth" .. "Puss Moth" .. "Moth" ..	6d./mc. 6d./mc. 4d./mc.
SOUTHAMPTON (Eastleigh) The Hampshire Aeroplane Club, The Southampton Aerodrome, Eastleigh, Hants (Eastleigh 170)	"Moth" .. "Spartan 3-str."	6d./mc. 9d./mc.
SOUTHEND Southend-on-Sea Flying Services, Ltd., Rochford Aerodrome, Essex (Southend 561101.) "Aerodrome, Rochford"	"Spartan 3-str."	9d./mc.
STOKE-ON-TRENT The Staffordshire Aero Club, Meir (Blythe Bridge 122)	"Desoutter" ..	£4/hr./mc.



Westland "Wessex" (3 7 cyl. "Genet") eight seater. (FLIGHT Photo.)

The England-Australia Air Service

MAJ. BRACKLEY, who has been making a survey of the air route to Australia, said on his return that the British Government wanted the new Australia-Britain air service in being by next spring, and it would then be possible to fly from Croydon to Sydney in 14 days. Most of the difficulties of the route have been conquered. Aerodromes between Calcutta and Singapore have been improved, and that at Darwin, the first Australian "land-fall," has been greatly enlarged. Wireless will play an important part in the new service. Such a degree of efficiency has been reached that, on his homeward flight, Maj. Brackley was in direct touch at Karachi with Sydney, 5,500 miles away. It was expected that Imperial Airways would start the first return service to Rangoon on September 23, arriving there on October 1, and returning the following day. By the end of the year the service would go as far as Singapore. The Australian Government has agreed to be responsible for the route beyond Singapore, and tenders will be invited from British Empire companies to provide the service between Singapore, Port Darwin, Brisbane, Sydney and Melbourne, or whatever is made the terminus. A possible future line marked down for survey is from Bangkok to Hong Kong, Shanghai and Tokio, where connections would be made with the Far Eastern services of China and Japan.

A London-Plymouth Air Service

WE are informed that International Air Lines, Ltd., of Croydon Aerodrome, will shortly establish a new air service, known as the "Western Air Express," between Croydon and Plymouth, calling at Portsmouth and Southampton. Besides catering for the people who travel between these important centres, it is intended that the air line will connect with ocean liners calling at Plymouth and all the Continental air liners leaving Croydon. Mr. W. A. C. Kingham, one of the Directors (formerly Managing Director of Gravesend Airport, Ltd.), has stated that these services will be inaugurated about the middle of August, and it is hoped that Britain is now air-minded, and will take advantage of this service, which shows a saving in time of many hours, and which will be operated at a fare comparable with first-class railway fares. The service (to be run thrice daily) will be entirely operated by twin-engine Monospar monoplanes carrying four passengers and baggage. The time taken in the journey between London and Plymouth, including the calling at Portsmouth and Southampton, will be only two hours. This service will connect with the Portsmouth-Isle of Wight service and South Coast services operating between Portsmouth and Shoreham, also Heston-Isle of Wight service, and at Plymouth with the G.W.R. service between Plymouth, Exeter, Cardiff and Birmingham.



"GENERALFELDMARSCHALL VON HINDENBURG": The Junkers G 38 D2500 which, as previously reported in FLIGHT, was christened at Tempelhof Aerodrome, Berlin, by the Field Marshal.

The Outer Hebrides Air Service

OUR attention has been drawn to the paragraph in FLIGHT on June 29 which stated that the Air Ministry had insisted that Highland Airways should provide a suitable intermediate landing ground on the route from Inverness to the Outer Hebrides. We are informed by the Air Ministry that they have made no such stipulation. The necessity for the landing ground is entirely the view of Highland Airways themselves, who also feel that a further landing ground, in the middle of the mountain valley leading to Ullapool will also be necessary in order to provide a retreat in case both ends of the valley become shut in with low clouds. It is not expected that anything further will be done about this service until next year.

Extension of Air Mail Money Order Service

THE Postmaster-General announces that the Air Mail Money Order service has now been extended to Nyassaland Protectorate, Northern and Southern Rhodesia and the Sudan. In addition to poundage at the ordinary rate for Imperial and foreign orders, a special air mail money order fee of 8d. is payable on each order for Nyassaland Protectorate and Northern and Southern Rhodesia, and 3½d. on each order for the Sudan, irrespective of its amount.

Air Mails from Great Britain

DURING the quarter ended June 30, 1933, 43,615 lb. of letter air mails were carried from this country, as compared with 32,869 lb. during the corresponding quarter of 1932, an increase of 33 per cent. The carryings to India alone were 10,770 lb., as compared with 8,847 lb. in the June quarter of 1932, an increase of 22 per cent.

Details of the letter air mail traffic are:—

	June Quarter	1932. Lb.	1933. Lb.
Indian Air Service (including Egypt, Iraq, etc.)		13,035	15,654
African Air Service		3,530	5,363
Other extra-European services		5,371	6,429
Continental services		10,933	16,169
Total		32,869	43,615

There was also an increase of 15 per cent. in the weight of parcels sent by air, the figures being 39,569 lb. in the June quarter, 1933, as compared with 34,364 lb. in the corresponding quarter of last year.

Portsmouth and Isle of Wight Services

THE following numbers of passengers were carried during the week ending July 27 on the services operated by the Portsmouth, Southsea & Isle of Wight Aviation, Ltd.:—Spithead Air Ferry, Ryde and Portsmouth (409); Shoreham Air Ferry, Portsmouth and Shoreham (4); Shoreham Air Ferry, Shoreham and Isle of Wight (4); Shanklin Air Ferry, Portsmouth and Shanklin (22); Shanklin Air Ferry, Ryde and Shanklin (16).

Loss of the Italian Seaplane

It will be remembered that an Italian seaplane of the Aero-Espresso disappeared when flying from Phaleron

to Rhodes on July 18. It had a crew of four and two women passengers. The body of one of the passengers, the Spanish Senorita Cattedagno, has since been found in the Gulf of Saros.

Palestine Air Mail

In answer to questions in the House of Commons, on Wednesday, July 26, concerning the transference of mail contracts from English to Dutch Air lines by the Palestine Government, Sir P. Cunliffe-Lister stated that the Dutch mails left on Tuesdays and the British on Fridays. The Government use for urgent correspondence whichever air mail is available nearest to the date when despatch is desirable.

More Commercial Users of Aircraft

WE learn from Brian Lewis & Co., Ltd., of 30, Conduit Street, London, W.1, that during the last six months they have supplied aircraft to the Scottish Motor Traction Co., Ltd., Midland & Scottish Air Ferries, Ltd., Hillmans Airways, Highland Airways, Ltd., Portsmouth, Southsea & Isle of Wight Aviation, Ltd., North Sea Aerial & General Transport, Ltd., Blackpool & West Coast Air Services, Ltd., Airwork, Ltd., Manchester, Rollason Aviation Co., Ltd., International Air Lines, Ltd. The machines supplied have been D.H. "Dragons," "Fox Moths" and "Puss Moths," and a General Aircraft "Monospar." The growth of commercial flying which these orders imply is also brought out in our special article elsewhere in this issue. Brian Lewis & Co. hold the de Havilland agency for London, north of the Thames, Middlesex, Herts, Essex, Bedford, Cambridge, Suffolk, Norfolk, Huntingdon, Lincoln, Notts, Derby, Chester, Lancashire, York, Westmoreland, Durham, Cumberland, Northumberland, also Scotland and Ireland, and are the sole distributors for the "Dragon." They hold the General Aircraft agency for England, north of the Thames, Scotland and Ireland. The volume of business Brian Lewis & Co. have done with all these firms, most of whom have purchased several machines, speaks well for them as live agents.

Air Lines in Jamaica

SIR P. CUNLIFFE-LISTER stated in the House of Commons on Wednesday, July 26, that two American and two British companies had applied for permission to operate air services to and from Jamaica. One American application was granted to the company in 1928 but advantage was not taken of the permission given. In 1930, permission was granted to Pan American Airways to operate an air service to Jamaica. The service started in 1930 and is still being operated. In 1929, Atlantic Airways, Ltd., applied for permission to operate air services to the West Indies, but the proposal to operate to Jamaica was dropped. In 1930 Caribbean Airways, Ltd., a British Co. registered in Jamaica, proposed to build an air base and fly services from Jamaica, Haiti and the Bahamas. Owing to a breakdown in negotiations concerning financial assistance the proposals put forward have not yet materialised.

AUGUST 3, 1933

ADVERTISEMENTS.

FLIGHT

LONDON TO CARDIFF AIR RACE

won by Capt. W. Styrán flying
Mr. Derwent Hall Caine's de
Havilland Leopard Moth
(Gipsy Major Engine).

CINQUE PORTS WAKEFIELD CUP

won by Mr. H. Probyn, flying a
Miles "Hawk," Cirrus III
engine.

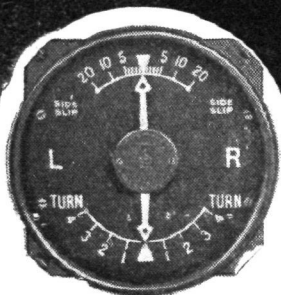
BOTH WON ON

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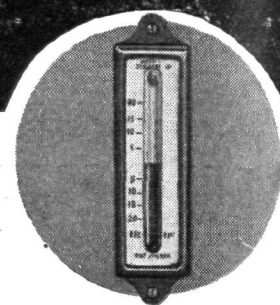
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From the Clubs

LONDON AEROPLANE CLUB

Among new members whom the Club has been very pleased to welcome is Mr. R. B. Nixon. Messrs. G. M. Fuerst and W. Goldsmith made their first solo flights last week, as did also Miss Scott. The move of the Club to Hatfield has been postponed until the end of September. The Club closed on Tuesday, owing to staff holidays, and will not be open on August Bank Holiday.

HANWORTH (N.F.S.)

Flying hours for the week ending July 29 totalled 87. During the hot weather many members enjoyed the bathing in the "Sportapool." Mr. Barrow did his first solo during the week. Capt. Parry, of the R.A.S.C., is taking instruction, and Messrs. Shahi and Wrench were given cross-country dual. A new pupil is Miss Molly Quennell, who is also taking a short engineering course in the workshops. On July 26 Mr. C. Fuller carried out his "A" licence tests, and in the evening of the same day Capt. Findlay gave a night-flying demonstration of the one-minute flares. The Vacuum Oil Co.'s "Dragon," piloted by Mr. White, arrived back on July 22 from a Continental tour which went as far afield as Czechoslovakia. The machine left again on July 24 for Paris.

Cross-country flights during the week included Capt. Finlay and Mr. Fred Darling from Liverpool on the 22nd, Capt. Findlay and Mr. Borley from Brussels on the 23rd, Capt. Findlay and Maj. Mealing to Clacton on the 24th, Capt. Wilson and Mr. Back from Torquay on the 25th, Messrs. Kirwan, von Bahr, Reid and Llewellyn to Gloucester, and Mr. Wingfield to Southsea on the 26th, and Mr. von Bahr to West Wittering, Lt. Sears to Hatfield and Mr. Carpmael to Cambridge on the 27th.

BROOKLANDS

New pupils at the Brooklands School of Flying are Miss Andrews and Dr. Daggett. Mrs. Motion did her first solo during the week, and Mr. Wren came down from



A PORT OF CALL: Coombe House Hotel, a short distance E.N.E. of Shaftesbury, has an adjacent area cleared and upon which aircraft have landed. This delightful hotel is just the sort of place for a week-end call by private owners.

Scotland to do his night flying for his "B" licence. A Spartan "Cruiser" paid a visit, piloted by Flt. Lt. Armour. Mr. McClure has satisfactorily carried out his two trial parachute descents for his Air Ministry permit. Another "Dawn Patrol" was carried out on Sunday, July 30. Total hours for the week, 80.

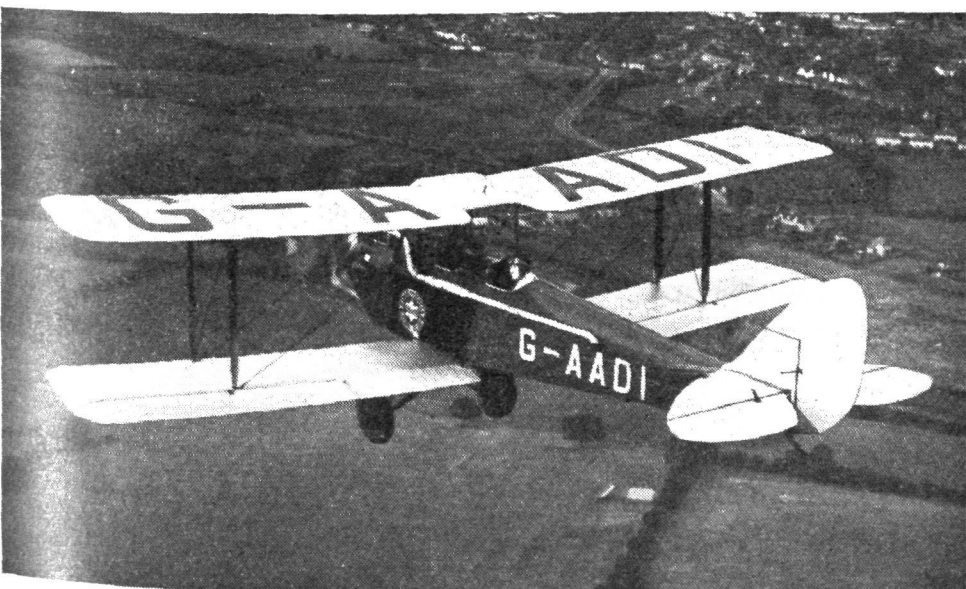
THE HAMPSHIRE AEROPLANE CLUB

During the month eight new pilot members joined the Club. The second competition of the year for the Silver Moth Landing Trophy was won by Mr. J. B. Waite. Twenty-six candidates for the *Daily Express* Free Flying Scholarship have taken trial lessons with the Club. Five new pilot members have joined the Club since July 1, and two associate members. At the beginning of the month the President of the Club, the Rt. Hon. Lord Louis Mountbatten, returned after being absent abroad on duty with the Fleet for the past two years. He is now putting in his time to renew his "A" licence. On Sunday, July 9, members of the Bristol Club returned the visit to Bristol made by Hampshire members in June by visiting the Hampshire Club on three machines. After breakfast they returned to Bristol in time to begin ordinary club flying for the day.

The flying time for June was 191 hr. 20 min. From the beginning of July to date no less than 264 hr. 25 min. were flown. Messrs. Westbrook, Rae, Woods, Lt. Com. Yorke, R.N., and Sub. Lt. Livesey, R.N., have passed their "A" licence tests, and Messrs. Rae, Rudd, Woods, Stehelin and Page made their first solo flights.

BERKS, BUCKS AND OXON AERO CLUB, READING

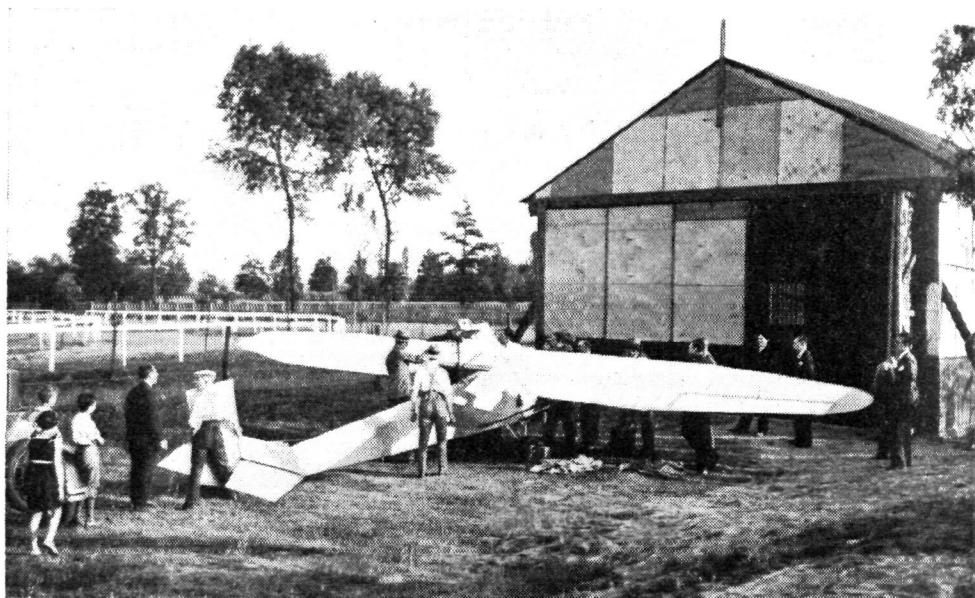
A very successful dance was held on the 28th, and many members of the Hanworth Club attended. Among those present were the Master of Sempill, Lady Muskerrey, Mr. and Mrs. Paul, Capt. and Mrs. Ayre and Mr. von Bahr.



WHILE PARENTS SLEEP: Mr. R. Douglas (from the cast of "The 10-min. Alibi") receiving instruction from the Stage and Screen Aero Club's Hon. Instructor, Mr. J. Raglan (from "While Parents Sleep"). (FLIGHT Photo.)

SOUTHERN AERO CLUB (SHOREHAM)

Landing and bombing competitions were held during the week-end July 22-23. A landing lane was marked out on the site of the new municipal airport and proved a very difficult mark. Mr. A. Auping succeeded in bringing his machine to rest 13 yd. from the datum line, and with his handicap of 40 ft. won the competition easily. Mr. A. G. Head dropped his two "bombs" 1 ft. 10 in. and 11 ft. respectively from the target, the next nearest being Mr. J. R. Blunt at 15 ft. 6 in. An unusually large number of members and their friends took tea at the clubhouse after the competitions. Thirty-three visiting planes used the aerodrome during the week, and Mr. G. H. Miles has added a "Widgeon" to the members' planes stored in the hangars.



THE B.A.C. "DRONE" IN BELGIUM: Here is a snap of the first "Drone" to be built in Belgium.

BRISTOL AND WESSEX AEROPLANE CLUB, LTD.

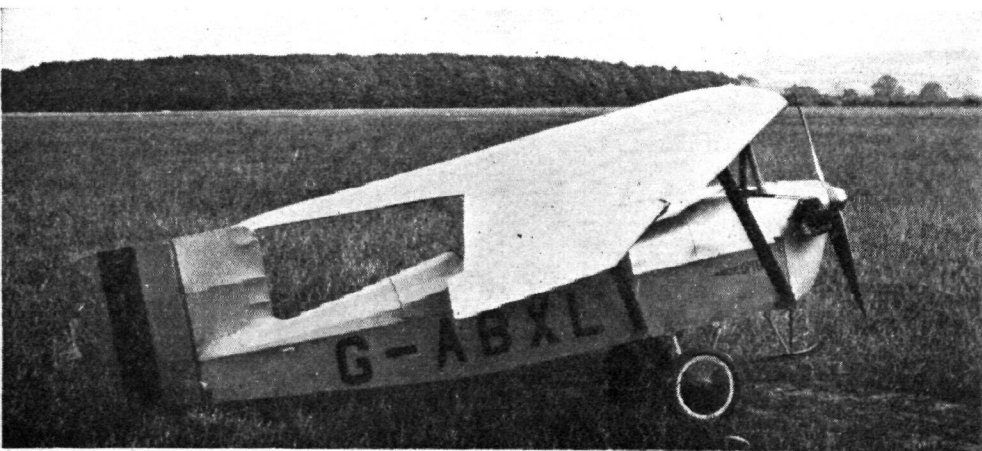
Bristol is experiencing a small boom in all classes of flying just now. The Club had a record month during July, the three Club machines putting in over 260 hr. The previous record for any one month was 227 hr. On Sunday, July 23, three Club machines, each carrying a passenger, paid an early morning visit to Reading, where pilots and passengers breakfasted. The journey was made via Calshot, the object being to get an aerial view of the Royal Yacht and other vessels. New members joining were Messrs. Holden, Maconochie, Caesar and Loel Guinness. The following made their first solos during the week:—Messrs. Gourlay, Chick, Caesar and Capt. Parry. Messrs. Voke and Neale obtained their "A" licences.

MAIDSTONE

Mr. F. W. Oxley passed his tests for the "A" licence during the past week, and Mr. Wicks made his first solo flight. He is the special representative of the *Kent Messenger*.

TOLLERTON'S PREHISTORIC MONSTER

We have received a few notes and the accompanying illustration of the *Archæopteryx* from its keeper, Mr. R. F. T. Granger, which we think will be of interest. The machine is now in its fourth flying year, and, although it has been altered in no essential since its first flight, it has been steadily improved in detail. Last winter a larger petrol tank was fitted giving 2 hours' range, the cowling greatly improved, and the undercarriage cleaned up. This has given an extra 5 m.p.h. speed, bringing the top speed to a little over 95 m.p.h. We believe this to be the highest speed ever attained by any machine fitted with the "Cherub 1" engine (24-29 h.p.), though some have been built with little more than half the *Archæopteryx's* wing area. It will also perform normal banked turns at 35 m.p.h. A special permit for experimental flying has been granted by the Air Ministry, and the machine is now flying regularly at Tollerton.



THE ARCHÆOPTERYX: An experimental tailless machine which has been flying for some time at Tollerton, and to which we refer above.

YORKSHIRE AEROPLANE CLUB

Yorkshire Club machines flew approximately 40 hr. during the past week. Among private owners, Mr. G. H. Ambler, of Bradford, has flown his "Monospar" to London twice and to Thornaby once, and Mr. R. E. Beanlands, of Ilkley, flew his "Moth" to Wales. Mr. G. O. Woods, of Leeds, joined the Club, and a Desoutter was recently added to the three Club "Moths." Visiting machines included EBXS from Sherburn, EBVB, AAEC and ACGV. The total number of *Daily Express* lessons amounts to 30.

BENGAL FLYING CLUB

In spite of the arrival of the monsoon weather and the lack of a third machine, June has been quite a successful month. Mr. W. C. Tomlin, the Club's ground engineer, is back again much the better for his sick leave. Thanks are due to Mr. Woollard who so ably stepped into the breach. Those starting flying instruction were Messrs. B. N. Bhattacharjee, J. G. Woollard, W. C. Tomlin and H. Flirjl; Mr. G. W. Selling made a good first solo and Capt. Johnson-Cole passed his "A" licence tests very creditably. Mr. W. Dougall, with Mr. K. M. Raha as passenger, flew to Landfall Point and return on June 28. Visiting machines included the Atalanta G-ABTL, piloted by Flt. Lt. Prendergast, with Maj. Brackley as one of the passengers; and Mr. Ulm flying V.H.U.XX. Total membership is 339, and flying times for the month were 41 hr. 40 min. dual, 61 hr. 40 min. solo.

LEICESTERSHIRE AERO CLUB

On Friday, July 28, the Chief Constable of Leicestershire, Capt. C. E. Lynch-Blosse, entertained the Deputy Chief Constable and the Superintendents of the County of Leicester Police to tea and a flying demonstration at Desford Aerodrome. The Chief Constable, who is a member of the Committee of the Leicestershire Aero Club, is very anxious to find out the possibilities of using the aeroplane in police work. After tea a dummy was hidden in a field within a mile of the aerodrome, and the visitors were taken up and flown over the area. All found it, two of them from a height of at least 2,000 ft. We may hear great things of the Leicestershire County Police soon.

THE LINCOLNSHIRE AERO CLUB

During the week ending July 22 the Club machines flew 29 hr. 15 min. Several new pupils are nearing the "A" licence stage. Capt. L. S. Tindall is chief instructor and Mr. Pierce assistant instructor. Much of Mr. Pierce's time is taken up in piloting the Grimsby-Hull air ferry, which is proving a great success. Several times the service has had to be duplicated. The machines used

are a Blackburn-Segrave "Meteor" and a D.H. "Fox Moth." A D.H. "Dragon" is to be added shortly. Taxi trips were made to Leamington, Newcastle, Croydon, Leicester, Withernsea and Hornsea. Mr. Corfe has been appointed general manager. Visitors during the week were:—Flt. Lt. R. R. Bentley (Comper "Swift"), Mr. M. D. L. Scott ("Moth"), Mr. A. Henshaw (Comper "Swift"), Mr. Richardson ("Bluebird"), Capt. Davis (Desoutter) and several machines from Brough and Sherburn. Fräulein Meyer left her canoe long enough to make her first flight, and was flown over part of her route. Several entrants for the *Daily Express* competition have had trial lessons with Capt. Tindall. Mr. L. Honour is proving a very popular ground engineer, and Mrs. Honour is doing well as stewardess of the club, being capable of producing lunches, teas and dinners at any time.

READING AERO CLUB

The flying times for the week ending July 20 totalled 70 hr. New pupils are Monsieur Ley, Count Hamilton, Mr. Wimbledon, Capt. de la Bere, and Capt. Gilbert, who has served in the R.F.C. and R.A.F. He has not flown since the war, but, to use his own words: "When he got into the machine fifteen years slipped back at once!" The works of Messrs. Phillips & Powis, in which the Miles "Hawk" is being produced, have been fully approved by the Air Ministry. The aerodrome at Woodley has been used as an emergency landing ground during the Air Exercises, and one night a large bomber landed at about midnight with a seized engine; the R.A.F. had it in the air again by 9 a.m. A Miles "Hawk" carried off the Wakefield Cup at the Cinque Ports Flying Club meeting, with an average speed of 115½ m.p.h.

Three machines took part in the July "Dawn Patrol" on Brooklands, and all got through without being observed, thereby winning a very good breakfast at the Brooklands Club's expense. Countess Hamilton has joined her husband at the Phillips & Powis school and is progressing well. Mr. Hoggarth has been solo, and several other pupils are almost ready. Others in training at the moment are Messrs. de la Bere, Walthew, Dashwood ("A" licence), Ley, Gilbert and Westerman. Mr. Ley, by the way, is Belgian, and Mr. Westerman, Swiss. There have been two *Daily Express* candidates during the week, and Mr. Pratten has made two parachute jumps. Since June 2 the works of Phillips & Powis have put through 20 machines for C. of A. Flying time for the week, 50 hr.

LONDON (Brooklands) to Newcastle (Cramlington) Race

The finish of this race, which is being organised and run by the Newcastle-on-Tyne Aero Club, will coincide with a flying display by the British Hospitals Air Pageant. Pilots who are visiting Cramlington aerodrome on that afternoon are therefore asked to be particularly careful when approaching, as the usual regulations as to circuits and aerobatics will not be in force. On the following day, Sunday, a lunch party has been arranged at the Otterburn Hall Hotel. This hotel has its own landing ground and is situated roughly 25 miles N.W. of Cramlington. All visiting pilots will be welcome. The closing date for entries for the race was August 2. The following list is of those received up to July 30:—

LONDON TO NEWCASTLE AIR RACE
SATURDAY, AUGUST 12, 1933

Reg. Mark	Machine	Engine	Pilot	Entrant
G-ACFY	"Gull"	"Hermes IV"	F. McGevor	E. Jobling-Purser
G-ABJN	"Moth"	"Gipsy II"	G. A. McPhee	J. H. Moller
G-ACEG	"Clipper"	Pobjoy	L. A. Strange	L. A. Strange
G-ABWW	"Swift"	"Gipsy Major"	H. H. Leech	N. Comper
G-ABUU	"Swift"	Pobjoy	G. Stainforth	Sir Norman Watson
G-ACGL	"Swift"	Pobjoy	A. Henshaw	A. Henshaw
G-AAVT	"Hendy"	"Hermes IV"	C. S. Napier	C. S. Napier
G-ABLG	"Puss"	"Gipsy III"	W. Runciman	W. Runciman
G-ACHM	"Moth"			
G-ACHJ	"Gull"	"Gipsy Major"	A. J. Styran	I. MacGilchrist
G-ABJR	"Hawk"	"Cirrus III"	J. Watson	J. Watson
G-ABJW	"Swift"	Pobjoy	R. Bannister	N. Kilian
G-ABVW	"Moth"	"Gipsy III"	L. Lipton	L. Lipton
G-AACW	"Moth"	"Gipsy Major"	R. Westenra	R. Westenra

AUCKLAND AERO CLUB

According to the Fifth Annual Report of the Auckland Aero Club, New Zealand, the past year was a good one for the Club, in spite of the general trade depression. Flying displays at a number of towns on the North Island produced considerable revenue, as did also the displays at Mangere during the visit of Sir Charles Kingsford Smith.



THE READING CLUB'S NEW HANGAR: This new hangar, recently completed, was erected within three weeks by A. & A. Law, Ltd., of 132, Kingston Road, London, S.W.9.

The year's operations show a profit of £59 as compared with a loss of £395 the previous year. Passenger flying produced a revenue of £1,114 and displays brought in £364. The net profit of the flying section was £693. There was a slight decline in total membership from 659 to 632. During the year 18 pupils obtained "A" licences, four qualified for "B" licences, and one was granted a commission in the New Zealand Air Force. Of the total flying time of 1,475 hr. 20 min., hire was represented by 734 hr. 10 min., passenger flying by 282 hr. 25 min. and dual instruction by 237 hr. 50 min.

LONDON GLIDING CLUB

On Sunday, July 16, five machines were launched between 11.30 a.m. and 10 p.m. In the early hours there were bursts of good soaring breezes, followed by sharp rain storms and a calm. The *Willow Wren* soared repeatedly, the Kassel 20 and the *Professor* once, and the *Prüfling* and R.F.D. were launched many times, the latter machine helping several people on towards "B" certificates. In the *Prüfling* a painstaking pilot obtained both "A" and "B" certificates during the day. Sunday, July 23, was a hot day, conditions being calm until the sun worked round and beat upon the face of the hill. A breeze sprang up later in the day, enabling the *Willow Wren* to soar three times for long periods. A flat calm returned at sunset. During the day six machines were in use, including the Poppenhausen with passengers, the Kassel 20, *Prüfling*, R.F.D. and *Hols der Teufel*. In all machines the pilots could feel the thermal currents, but only the *Wren* was able to take real advantage of them.

SCARBOROUGH AERO CLUB

The Scarborough Aviation Display will be held at Ganton Aerodrome, East Heslerton, on Bank Holiday Monday, August 7. The programme will include a "Round the Ridings Air Race" starting from East Heslerton. The course will be about 127 miles, with turning points round the hangars at Maj. J. E. D. Shaw's private aerodrome, Welburn Hall, Kirbymoorside, at Sherburn in Elmet, and at Hull (Hedon) Aerodrome. The prizes will amount to £50 in value. There will also be a short Round the Houses Air Race. An Arrival Competition will be held for machines arriving between 11.30 and 12.30, four parachute drops will be made, and Western Brothers will stage a humorous item showing Scarborough's latest tunny fishing industry. The display will be opened by Kathleen, Countess Drogheda, G.B.E.

THE DE HAVILLAND SCHOOL OF FLYING, HATFIELD

The flying time for the week ending July 28 was 165 hr. 45 min. The Stage and Screen Sporting and Aero Club's Secretary (James Raglan) organised a very pleasant theatrical midnight bathing party on Thursday. The weather was not kind; a cool north wind at that hour rather checked their ardour. However, Pat Hollander, who simply radiated happiness and energy, soon had everybody playing squash or bathing, which was followed by a cheerful kipper, bacon and egg supper, and an impromptu dance. Sir John Salmond, Lindsay Everard, Chris Clarkson and Capt. Broad were amongst the many seeking relief in the pool from the heat during the week. Col. Miskin has exchanged G-AAHO for a "Gipsy Major Wooden Moth," G-ACHH, which he flew to Dover, where he commands the summer camp of the Beds and Herts (T.). Baron von Trautenberg and Jack Maywood, the Australian and English Ice Hockey International Captains, are using the squash courts in anticipation of a strenuous ice hockey season.

Airisms from the Four Winds

The Prince of Wales

ON July 26 the Prince of Wales was due in Suffolk to fulfil some engagements. His own "Dragon" was not serviceable, so he borrowed another "Dragon" from Mr. Wrightson and flew from Sunningdale to Suffolk.

Lord Wakefield and the Mollisons

LORD WAKEFIELD OF HYTHE has offered to give £1,500 towards the purchase of a new aeroplane for Mr. and Mrs. Mollison. He has also offered to defray the cost of repairing the aeroplane crashed by Mr. Charles Ulm, who flew to England from Australia. Mr. and Mrs. Mollison were entertained on July 30 by President Roosevelt in his Hyde Park estate. They motored over with their hosts, Mr. and Mrs. George Putnam, the latter being better known as Miss Amelia Earhart. Mr. Mollison had his arm in a sling and plaster on his face, and his wife's ankle was in bandages.

Ellsworth Antarctic Expedition

SIR HUBERT WILKINS and the American pilot Bernt Balchen are on board the steamer *Fanefjord*, which has left Bergen for Cape Town. Mr. Ellsworth, who was with Amundsen and Nobile on the North Pole voyage of the airship *Norge*, will join the steamer later. He and Balchen hope to fly across the Antarctic Continent.

Mr. Wiley Post and Mr. Mattern

THE Mayor of New York has conferred a medal on Mr. Wiley Post in honour of his second flight round the world. He received one after his former flight in company with Mr. Gatty. Mr. Mattern returned to New York in a Canadian aeroplane on July 30.

Germany and Air Police

CAPT. GORING, the Reich Air Minister, recently approached the British Air Attaché in Berlin and suggested that Germany should buy a number of British aeroplanes for her police force. The official reply was made that Great Britain could not countenance a breach of the Paris Air Agreement.

A Bristol "Veteran" in Australia

It is an interesting fact that what is probably the oldest aeroplane in service in Australia to-day is also declared to be the fastest machine on that Continent. The aircraft in question is the Bristol monoplane owned by Mr. H. Miller of Adelaide. This machine was taken out to Australia by the late Capt. Harry Butler just after the close of the Great War, and was used by him for three or four years for exhibition flying. After his death it lay for several years in the corner of the ceiling of a garage. It was then bought by Mr. Miller, who altered the machine to take a "Gipsy I" engine. He entered it for the Australian Aerial Derby, in which he was first home for two years in succession. The second year, however, he was



The "Veteran" Bristol monoplane in flight.

disqualified for exceeding the speed estimate. Mr. Miller then acquired a "Gipsy III" engine from a crashed machine, which he rebuilt, "turned it the right way up," and fitted it in his Bristol monoplane. "It is, according to the handicappers," states Mr. Miller, "the fastest machine in Australia, judging by the way they keep me back in any race I enter it. It is very nice to fly, highly manoeuvrable, and, being very lightly loaded, has a considerable speed range."

Mishap to Ulm's Machine

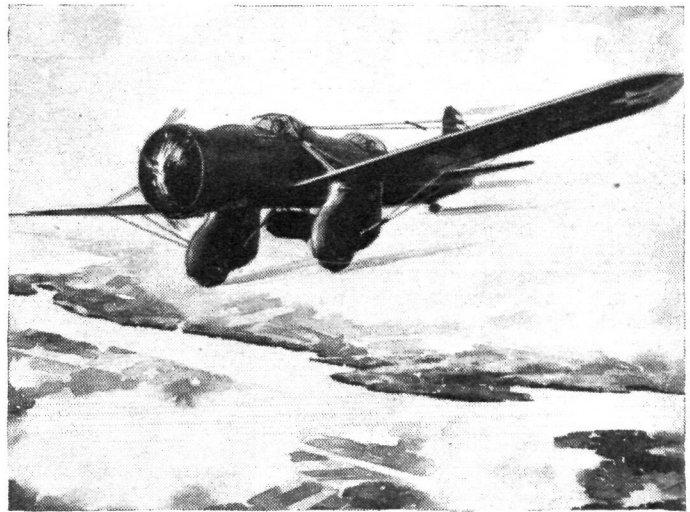
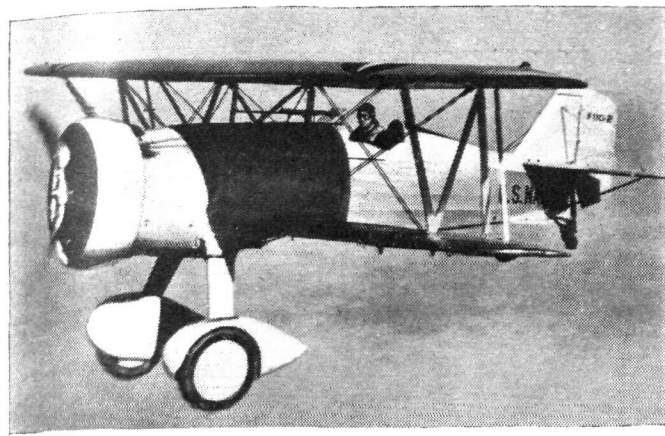
MR. ULM's monoplane had been refuelled on Portmarnock Strand for the proposed flight to America, and the handling party began to move the machine along the planks which had been placed under the wheels, when one of the wheels slipped off its plank and sank into the sand. The tilting of the machine brought too great a weight on to the one wheel, and the undercarriage on that side collapsed. Unfortunately, several people were injured by the wing tip as it struck the sand, and had to be taken to hospital for treatment. The wing tip was also slightly damaged. Mr. Ulm has stated that he has had from Lord Wakefield of Hythe an offer to defray the expenses of repairing the damage.

Curtiss-Wright Developments

THOMAS A. MORGAN, President of the Curtiss-Wright Corporation, has recently announced that the receipts of export orders since January 1 amount to 2,500,000 dollars,



"I WANT TO BE A SEAPLANE!" Mr. Ulm's Avro 10 monoplane caught by the tide at Portmarnock Strand, Dublin, when its undercarriage collapsed after being refuelled.



THE CURTISS F.11C-2 (left) and A-12 recently supplied respectively to the U.S. Navy and U.S. Army Air Corps.

a total equal to the entire export business during 1932. The machines exported number 101, which include 54 Curtiss "Hawks" powered by the new 700-h.p. Wright "Cyclone" engines; nine Curtiss "Falcon" two-seater biplanes, also powered by "Cyclones"; nine Curtiss-Wright training machines, powered with "Whirlwinds"; and four Curtiss-Wright "Ospreys," powered with 420-h.p. "Whirlwind" engines. Thirty 700-h.p. "Cyclone" engines have also been exported. Mr. Morgan also claims that great progress has been made during the past two years in selling planes and engines to countries which in the past have not purchased from America. Among the foreign companies who are using Curtiss-Wright products are the Fokker Co. of Holland, who are building three new monoplanes, a twin-engine, a three-engine, and a four-engine, all of which will be fitted with 700-h.p. "Cyclone" engines; the K.L.M., who operate on the 9,000-mile route between Amsterdam and Batavia; the Avio Lines, between Rome and Zurich; the Swissair, between Zurich and Vienna; the Deruluft Air Lines, between Berlin and Moscow; the Czechoslovakian Air Transport Co., and China Airways. During the past six months shipments have been made to China, Russia, Germany, Spain, Poland, Switzerland, France, Holland, Italy, Czechoslovakia, Sweden, Bulgaria, Colombia, Chile, Peru, Bolivia, Ecuador, Venezuela, Argentina, Brazil, Mexico, Guatemala, Honduras, Santo Domingo, Porto Rico, Cuba, Canada, Australia, Philippines, Turkey and Dutch East Indies. The Argentine Government are manufacturing "Cyclone" engines under licence. At the request of the Turkish Government, Curtiss-Wright personnel have surveyed 4,200 miles of proposed airways throughout Turkey. The first airway in this country is actually in operation between Ankara and Istanbul, using Curtiss-Wright "Kingbird" machines flown by American pilots. The Turkish Government have also purchased 24 Curtiss "Hawk" fighters fitted with "Cyclone" engines, and six Curtiss "Fledgling" training machines. Under the supervision of American personnel, the Turks are now building "Hawks" and "Fledglings" in their own plant at Eskisehir.

The Fitzpatrick Case

BRIG. GEN. SPEARS, M.P., raised a point in the House of Commons on July 26 about the alleged treatment of F/O. D. G. P. Fitzpatrick (Reserve A.F.O.) by three plain clothes C.I.D. men on July 14 at about 3.40 a.m. His story was that Mr. Fitzpatrick was carrying a suitcase in his hand near Victoria Station when a saloon car drove up, two men jumped out and one of them asked him what he had got in his bag. He replied "That is my business." He mistook the men for bandits. Two then seized him by the arms, and when he struggled they twisted them. They produced their police cards, but he was not convinced that they were police officers. He was taken forcibly to a police station where he was able to prove his innocence. He then demanded an apology, which was refused. Sir J. Gilmour, Home Secretary, expressed the regret of himself and of the Commissioner (Lord Trenchard) that this should have occurred, but defended the action of the C.I.D. men. Members were dissatisfied with his attitude, and a very angry scene followed. Finally, Lord Trenchard saw Mr. Fitzpatrick, and, it is reported, the Commissioner apologised handsomely for "the pain and discomfort" caused to him. It is understood that a departmental inquiry is to follow.

The Folkestone Aero Trophy Race

THE date for this race, which proved such a success last year, has been fixed for August 26, and once more the organisation is in the hands of the Cinque Ports Flying Club. The course will be the same as last year, being three circuits of Folkestone with a total distance of about 38 miles. The prizes are:—1st, The Folkestone Aero Trophy, to be held for one year, plus a Cup and £50, 2nd, a Cup and £25; 3rd, a Gold Medal and £10. The entry fee is £2 2s. 0d. up to 7 p.m. on August 16, while late entries at £4 4s. 0d. will be received up to 7 p.m. on August 23. All information and entry forms may be obtained from the Cinque Ports Flying Club, Lympne Airport.

A Pioneer

MR. MAGNUS VOLK, who celebrates his 82nd birthday this year, will also celebrate the jubilee of his Electric Railway at Brighton on Friday, August 4. Mr. Volk's railway was probably the first electric railway in the world, and has been running consistently since that time. Mr. M. H. Volk, his son, is well known in aviation circles. He started his career when he erected a seaplane hangar for the *Daily Mail* Farman seaplane in 1912, and formed the first seaplane station in the country. During the war Mr. Volk was works manager to Mr. Gordon England, now a Director of the Vacuum Oil Co., and assisted him in building Short seaplanes and Avros at Frederick Sage's works at Peterborough. Afterwards he managed other seaplane works, and latterly has been responsible for getting the Brighton, Hove and Worthing municipal aerodrome scheme through at Shoreham.

Mr. Trantum's Next Jumps

It is reported that Mr. John Trantum intends shortly to make two jumps more daring than was ever attempted before. On Southport sands he will hurl himself from an aeroplane travelling at 100 miles an hour only 100 ft. from the ground, and it is calculated that this allows him only 3 sec. in which to leave the machine, open his parachute and land. His estimated landing speed will be 30 miles an hour, and if he succeeds in carrying out this feat, he will have beaten his own previous world record jump by 54 ft. Mr. Trantum will then go to Salisbury Plain, probably Netheravon, where he hopes to beat his other world record by leaping from an aeroplane at a height of over 6 miles, and will drop for 5½ miles before opening his parachute, thus establishing a record for the highest altitude jump and the longest delayed drop. He will carry a wireless transmitting set, and it will be of vast interest to millions of listeners to learn the sensations that he registers as he makes this world record jump.

Mr. Handley Page's Income Tax

JUDGMENT was given in the King's Bench on July 28 dismissing an appeal of Mr. Handley Page against an income tax assessment on the sum of £30,483. It was contended that the sum awarded by the Royal Commission was in respect of user and designs of aeroplanes built during the war which were the property of the Handley Page Company, and that the money was not awarded to Mr. Handley Page. Further, that any sums awarded by the Commission were *ex gratia* payments in the nature of bounty and were not subject to tax. The appeal was dismissed with costs.

THE ITALIAN FORMATION FLIGHT

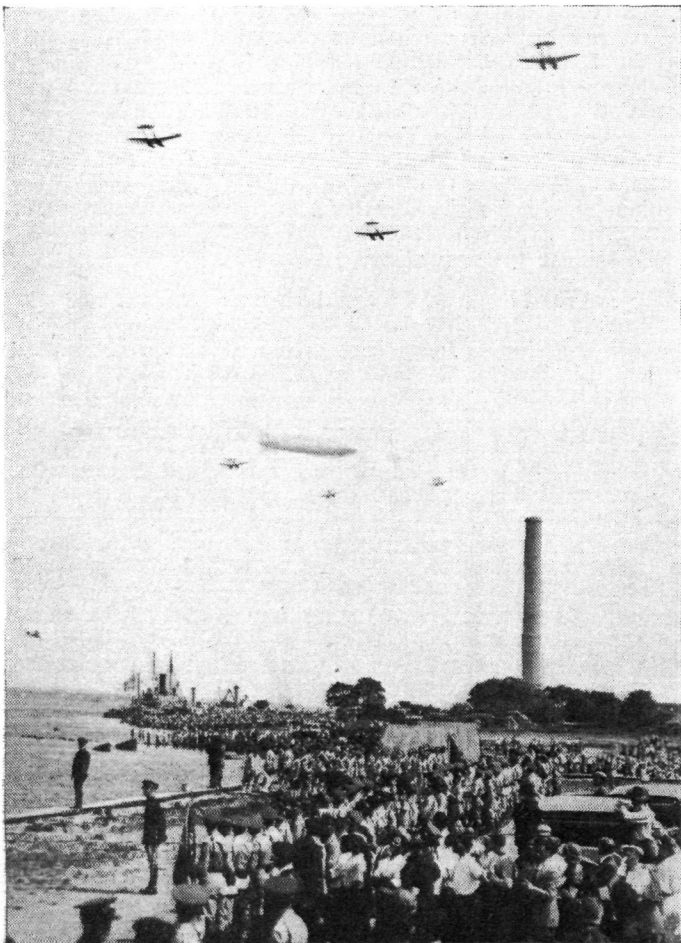
SINCE our last report (July 20) of General Balbo's "Aerial Armada" further progress has been made in this remarkable flight of 24 Savoia Marchetti flying boats. Our correspondent in Montreal writes that when the Armada arrived there on July 14 the inhabitants turned out in their thousands to welcome and pay honour to General Italo Balbo and his more than 100 companions and followers who had left Shediac, New Brunswick, at 9.51 a.m. (Eastern Daylight Saving Time) on the fifth hop of their six-lap journey to the Century of Progress Exposition at Chicago. Both sides of the St. Lawrence River, and especially the south shore adjacent to the Fairchild Airport, were thronged with thousands of sight-seers in autos and afoot from an early hour. At exactly 1.40 p.m. the first six machines, in two flights of three, hove in sight through the sunlit haze from an east-south-easterly direction, having crossed over St. Hubert Airport, temporary home of *R.100* a couple of years ago, before striking the river. Thereafter, they came in batches, the last three being sighted at 2.20 p.m. Most of them circled the downtown section of the city before swinging back to land and tie up to the mile-and-a-half line of buoys which had been laid down for them. Our correspondent considered that he had executed a strategic move by appointing himself as the crew of one of the faster motor launches chartered to attend the fleet. He soon found that he had taken on a real job of work,



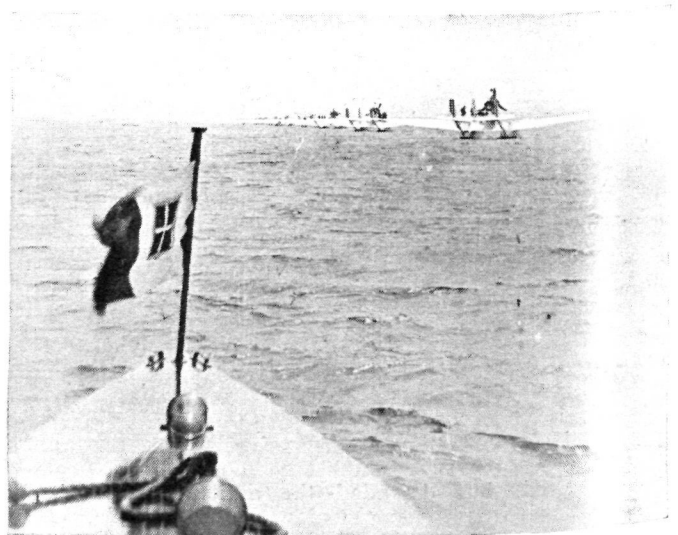
AT CHICAGO: General Italo Balbo led his entire staff of 104 men to the Holy Name Cathedral to attend a Thanksgiving Mass, on the morning following their successful arrival from Italy.

but it was worth it all to see those 24 machines, with their 48 splendid engines, come to rest with perfect precision.

As previously reported, from Montreal they flew on to Chicago on July 15, where three days were spent visiting the Chicago Exhibition and attending various functions. At 8.42 a.m. on July 19 the Armada set out for New York, and, covering the 1,000 miles in seven and a half hours, the 24 seaplanes, escorted by U.S. machines with the airship *Macon* cruising nearby, flew along the Hudson River, circled over New York City and the Statue of Liberty and finally alighted in Jamaica Bay. After lunching with President Roosevelt at the White House on July 20, General Balbo was forced to await favourable weather before he could resume the return flight. On July 25, however, the Armada left New York for Shediac, New Brunswick. Two of the seaplanes had to land *en route*—one at Rockland, Maine, owing to a broken oil pipe, the other at St. John, N.B., owing to some other minor trouble—but the rest arrived safely at Shediac. Later, the other two seaplanes also arrived. Next day the flight was continued to Shoal Harbour, Newfoundland, 23 of the seaplanes arriving by noon, but one had to land with engine trouble near Cape Traverse, Prince Edward Island, and rejoined the others next day.

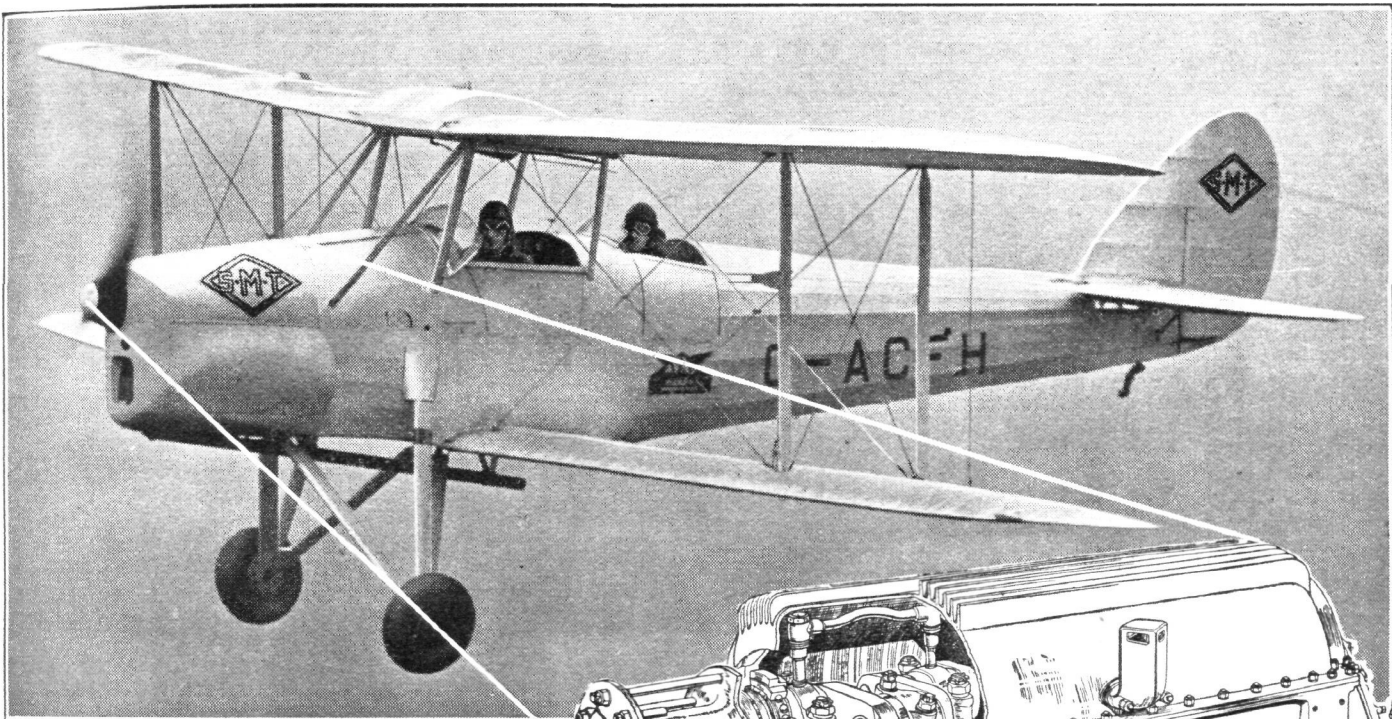


The Armada arrives at New York, July 19; note the U.S. airship *Macon* in the background.

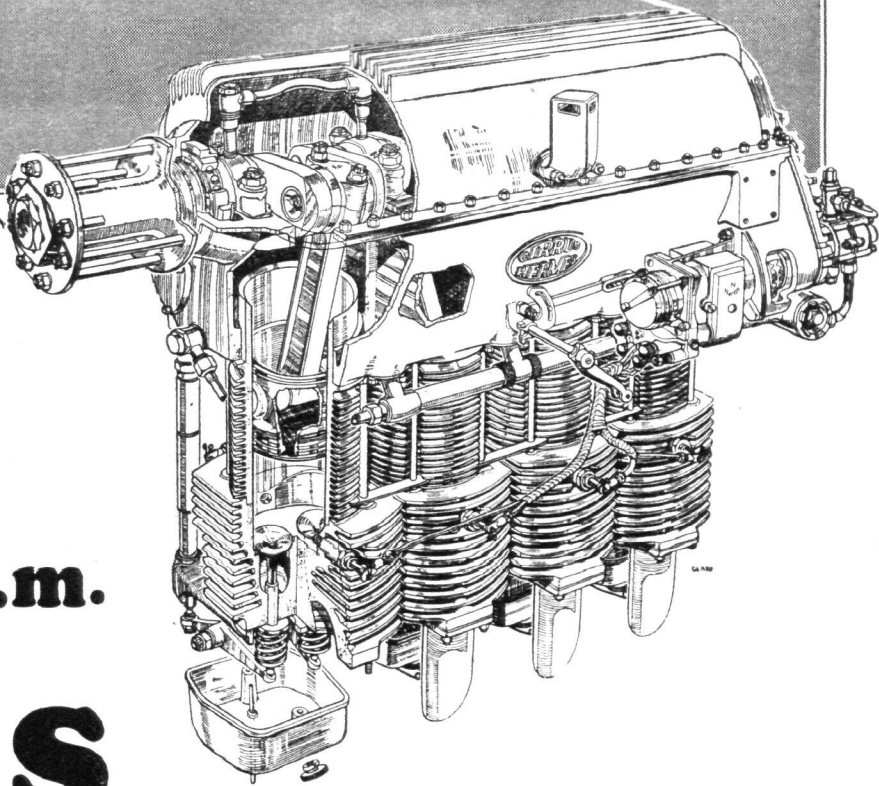


Balbo's "Aerial Armada" at their buoys in the St. Lawrence River, Montreal, on their arrival, Friday, July 14. (Photo, A. H. Sandwell.)

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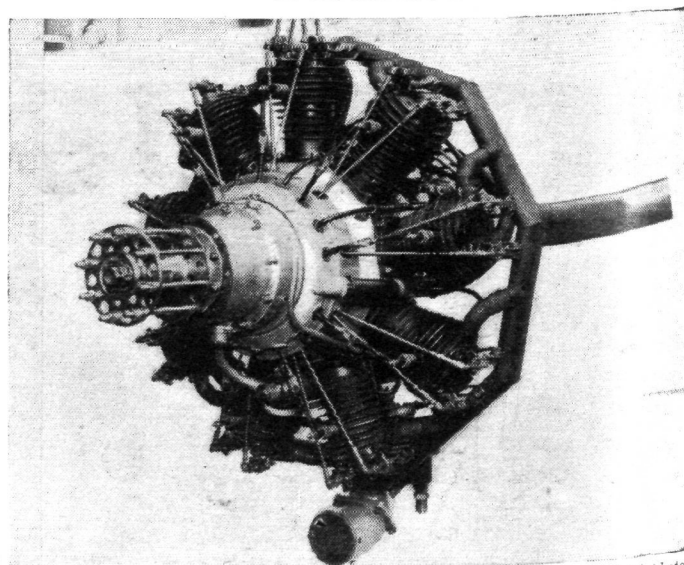
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175 lbs.

● Hand or magneto starting. Reduc-
tion gear ratio 5 : 1, giving a normal
airscrew speed of 1,500 r.p.m.
Maximum—1,650 r.p.m.

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Airport News

CROYDON

MAJOR H. G. BRACKLEY, air superintendent of Imperial Airways (who has been surveying the England Australia Air Route), arrived at Croydon on Monday, July 24, having flown from Australia, a distance of 12,000 miles in only ten days, in the four-engined monoplane *Astraea*. At the beginning of August, Imperial Airways hope to save another day on their service to East Africa. The incoming mail will then reach Croydon on Fridays at 11.45 a.m.

The Air Union's new twenty-four passenger machines, which are being built for the cross-Channel service to start early next year, will have British engines, built under licence in France, and a maximum speed of 240 m.p.h. and will be able to make the journey from London to Paris in an hour.

Mr. John Trantum, the world famous parachutist visited the Aerodrome on Thursday and told me all about his next parachute jump. (Described elsewhere in this issue. —Ed.)

Marshal Chang Hsudh Liang, the young ex-Chinese War Lord, who has been touring Europe, arrived at Croydon at 3 o'clock on Sunday afternoon in the Airliner *Horatius* from Paris.

Mlle. Suzanne Lenglen returned to England from Paris in the Imperial Airliner *Hengist* on Monday afternoon. Mlle. Lenglen has recently been assisting in the coaching of Andre Merlin, who was defeated by F. J. Perry in the Davis Cup on Sunday.

A new air link between London and Plymouth is shortly to be established by International Airlines, Ltd., of Croydon Aerodrome. This new service, which will be known as the Western Air Express will be run three times daily, calling at Portsmouth and Southampton. (Further details of this service will be found on p. 779.)

International Airlines are a Company of all British enterprise, and if the Western Air Express proves successful a number of other important air links will rapidly be inaugurated by the same company.

"We owe a deep debt of gratitude," said Mr. Kingham, a Director of the Company, "to the Corporations of Plymouth, Southampton and Portsmouth, who have done everything in their power to assist International Airlines in their endeavour to bring these towns within the shortest possible time of London, offering facilities to help the business man to keep abreast of the new wave of industrial development."

"HORATIUS."

FROM HESTON

THE arrival of the Iraq Airwork "Dragon" at Larnaca, Cyprus, on July 17, flown by Capt. T. Neville Stack, chief pilot to the company, aroused tremendous enthusiasm among the inhabitants.

Heralded on the day previous by the local town crier, its appearance over the hills brought a procession of villagers from all directions. Swooping along the sea front a few metres above the piers, Capt. Stack made an excellent landing on good ground to be greeted by the Mayor of the town, the District Commissioner and the Commandant of Police. There commenced immediately a series of 10-minute flights during which 56 passengers were carried.

During a short halt at Athens, en route for Cyprus, the machine was inspected by the Ministers for Air and Communications with all the more important members of their staffs, the President and all the members of the Air League Committee and the committee of officers officially appointed by the Air Ministry to inspect and report upon the machine. The British Legation was also represented.

Mr. C. T. P. Ulm and his companions, Mr. Allen, Mr. Taylor and Mr. Edwards (who has joined the crew in England as a wireless operator), left Heston at 4.40 a.m. on July 27 in the *Faith in Australia* for Baldonnell. Mechanics at Heston had been working all night on the machine—after carrying out top overhauls on all three engines, a complete overhaul of the air-frame and modifications which included the removal of a petrol tank—to get it into flying trim in time for Mr. Ulm to take advantage of the fine weather for his Atlantic flight, and we very

much regret the unfortunate mishap which has delayed his start again.

The Prime Minister, Mr. Ramsay MacDonald, has arranged for his car to be delivered next week to Airwork Engine Service, Limited, for the cylinder re-boring and crankshaft grinding in which they specialise. The Home Secretary, Sir John Gilmour, and Lord Trenchard are also sending their cars to acquire the mirror-like cylinder finish to A.I.D. standards and plus or minus 0.0002 in. which this company's machines are able to impart.

Quick to follow in the footsteps of three of her family, Lady Londonderry has this week had several flying lessons at Heston, and is tremendously keen. Among other new pupils is Madame Blanc, who was introduced to Heston by Lady Forbes.

Last week the British Air Navigation Co. carried two doctors over to Dublin for the Medical Conference. Birkett Air Service have had a busy week of press work. On July 22, Capt. Birkett took off from Pendine and accompanied the Mollisons as far as the Irish Coast with a representative of the *Daily Mirror*. Maj. Digby made the return trip of 180 miles, Pendine-Stag Lane, in a "Puss Moth" in 1 hr. 30 min. On July 26, three Birkett machines took press representatives to Southampton when H.M. the King opened the new dock. Maj. Digby made the return trip of 65 miles from Eastleigh to Stag Lane in 29 min. in a "Gull" ("Gipsy Major"). On July 27, Capt. Birkett accompanied Ulm to Ireland and was first home with pictures of the damaged machine. Miss Jean Melville, the B.B.C. radio star, left Heston on Sunday by Spartan Air Lines to give a show in Shanklin the same evening. During the week ending July 26, 41 machines cleared Customs at Heston.

The directors of Airwork, Ltd., are Mr. Nigel Norman, Mr. Alan Muntz, and Mr. Roderick Denman. The professional association with Messrs. Norman and Muntz of Mr. Graham Dawbarn, the architect, who has been responsible for the design of so many aerodrome buildings at Heston and elsewhere, has been formed as a consulting partnership and to distinguish it from the purely business operations of Airwork, Ltd.

Bristol Airport

AIR taxis at the Bristol Airport have been in great demand during the past week, the machines of Norman Edgar & Company making no fewer than ten trips since Monday last, the shortest of which was from Bristol to Manchester. Extra traffic on the Bristol-Cardiff Air Ferry Service has also necessitated the employment of an additional machine on five days out of the last seven. Judging from enquiries received at the Airport offices, the commercial air traffic between Bristol and South Wales would be more than doubled if Swansea could boast of an aerodrome, or even a reasonable landing ground near the town. It is, therefore, particularly disappointing to hear that last week the Swansea Corporation again postponed the question of a municipal aerodrome.

Landing Grounds in Malay

IN reply to a question by Capt. H. Balfour, in the House of Commons on Wednesday, July 26, the Secretary of State for the Colonies (Sir P. Cunliffe-Lister), stated that landing grounds provided by the Malay Government for Imperial Airways would be available for use by other British private and commercial machines.

Early Licences

NOWADAYS, when there are so many licences whose numbers run into four figures, it is interesting to look back a bit. There are still six pilots flying in this country with a "B" licence whose licences have numbers lower than 100. Capt. Duncan Davis, the presiding genius at Brooklands, possesses No. 22; Mr. A. G. Loton, No. 37, is chief instructor to North Sea, Aerial & General Transport Co., Ltd.; Sir Alan Cobham's licence is No. 54; Mr. J. Lankester Parker, who holds licence No. 74, is the well-known test pilot to Short Bros., the flying boat manufacturers at Rochester; Capt. C. D. Barnard, who has made so many long-distance flights, has licence No. 81, and Mr. H. J. Horsey, an Imperial Airways pilot, has No. 99.

THE UNION OF "PILOTES CIVILS" TOUR OF FRANCE



THE EIGHTH LAP : The departure of several Farman type 351 planes (Renault or "Gipsy") from the La Baule.

THE departure of the Tour from Orly Airport on Friday, July 21, last, together with its itinerary was described in last week's issue of *FLIGHT*, when some 57 tourist planes "took off," in addition to the official, and several other machines accompanying them. The first stage of the Tour terminated that afternoon at Dijon, where a large banquet was held, presided over by M. Gaston Gerard, former Under-Secretary of State for Tourism. This first stage was uneventful, and all of the planes arrived in time.

Owing to the cloudy weather prevailing on the Saturday morning, the departure from Dijon was delayed somewhat, one plane experiencing some slight engine trouble, but 56 machines took off for the next lap of the Tour, which terminated at Cannes. Two "bag-dropping" contests were scheduled for this lap, one at Beaune and another at Roane, towns situated along the route.

Just before arriving at Saint Etienne, mid-point of this section, where an official luncheon awaited them, the tourists encountered a violent thunderstorm, which delayed them somewhat, but 54 planes arrived that afternoon at Cannes. The following day, Sunday, was scheduled as a day of rest, and the airmen remained at Cannes, where a number of entertainments were given in their honour. The next day (Monday), Cannes-Perpignan, was uneventful, with the exception that two of the planes damaged their landing gears slightly and two had some engine troubles, but several of them rejoined the Tour later on. A "bag-dropping" contest was also held at Nice during this lap.

An unfortunate accident occurred the next day (Tuesday) on the section Perpignan-Biarritz. At about 1,500 ft.

from the aerodrome of the latter place, a Farman plane, type 201, piloted by Marcel Langlois, the winner of the recent "12 Hours of Angers," while flying at a height of about 250 ft., attempted to make a banked turn in order to land at the airport. The machine side-slipped, stalled and crashed and then caught fire, fatally burning both the pilot and his passenger—Adjutant Delange. The following day (Wednesday) at Biarritz was also scheduled as a day of rest, and owing to the sad accident all official functions was cancelled. The next section of the Tour (Thursday) carried the tourists to la Baule, where they were greeted by the Air Minister, M. Pierre Cot, accompanied by Sadi Lecointe, the Vice-President, and Dieudonne Costes, the honorary Vice-President of the "Pilotes Civils." A monument was inaugurated at la Baule during the afternoon to the pilot Georges Morin, a resident of that town, who was killed recently while making a test flight in a new plane.

The following day (Friday) the tourists accompanied the Air Minister to Rennes, where he inaugurated the new airport of that city. From there they flew to Deauville, where the Deauville Aviation Club gave them a luncheon on the beach. Several planes that had met with slight mishaps rejoined their comrades at this point, thus making 52 machines to take part in the finish of the Tour. The tourists were met at Deauville by four Belgian machines, piloted, respectively, by de Keyn, Lucq, Dupon and Havet, who arrived to escort them on the last two sections that will take them to Brussels on Saturday and from Brussels to the Buc (Versailles) aerodrome on Sunday where the Tour will officially terminate. R. C. W.



EN ROUTE : An aerial view of St. Malo taken during one of the last sections of the Tour.

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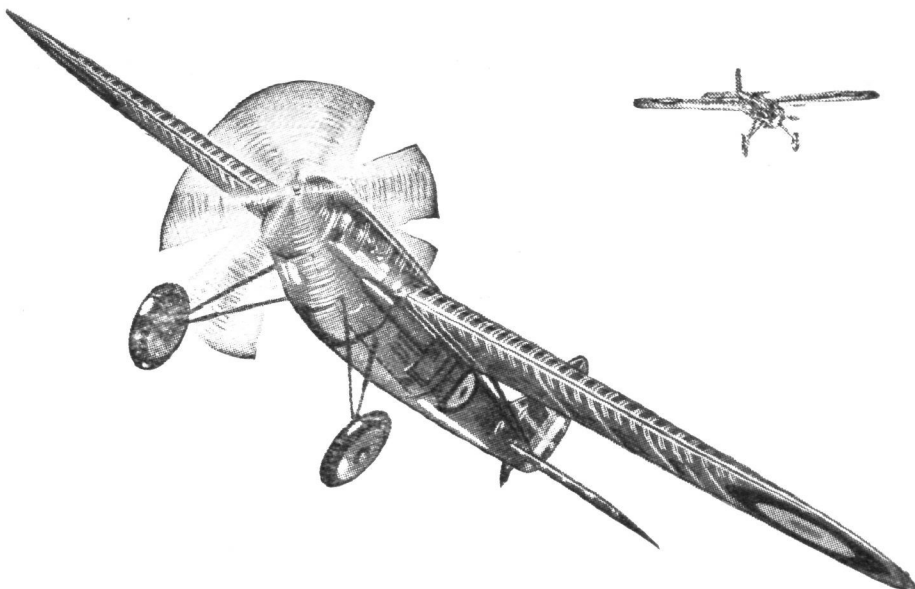
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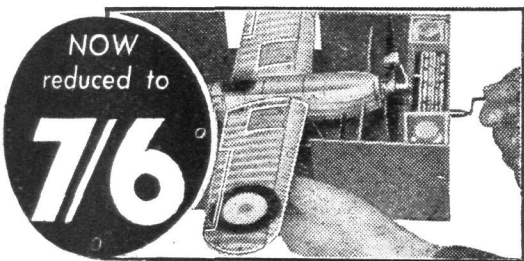
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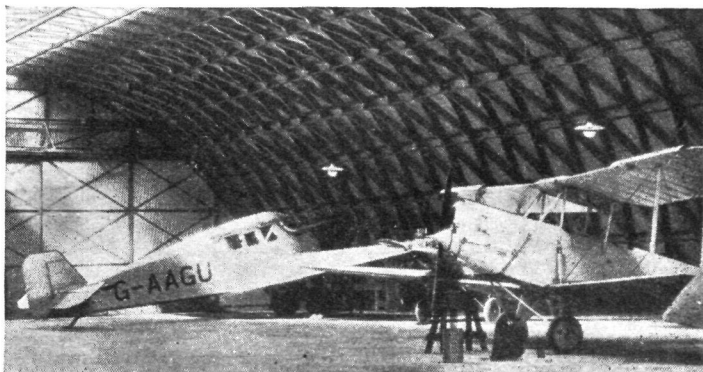


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A REAL "ROUND-THE-WORLD" FLIGHT

[2869] It is quite obvious that to establish a long distance time record for comparative purposes the flight should start and finish at the same point as the previous record, although the intervening route need not necessarily be the same.

In the case of Messrs. Post and Gatty's record in June, 1931, and Mr. Post's recent breaking of that record, both flights started and finished at New York. The routes were approximately the same, and a genuine record, therefore, has been set up from New York and "Round the World" to New York again.

A correctly described "Round the World" record, however, would be a different matter. The circumference of the world at the Equator is approximately 25,000 miles, but Mr. Post only covered some 16,000 miles in his flight, due to the fact that the whole of the route lay between 45 deg. and 60 deg. N. latitude. The farther north the latitude of the route lies the shorter will be the distance round and the better the chance of breaking the record.

If a "Round the World" record is to be established the flight should be along a route the mean of which is a line of greatest circumference. The Equator lies mostly over water, and a flight along 0 deg. latitude might be impossible, but by confining the route to such a line within a belt extending from 20 deg. S. to 20 deg. N. latitude, such a flight would be possible, as the Hawaiian Islands would break the largest expanse of water.

A record of this description would be really worth establishing, and I should welcome the privilege of being allowed to offer a trophy, and am in touch with the Royal Aero Club.

ALEXANDER DUCKHAM.

London, July 31, 1933.

[We are extremely glad that Mr. Duckham has raised the point about the difference between a real "Round-the-

World" flight and the so-called world flights which have been made. The first flight to be so named, it may be remembered, was made in 1924 by American pilots on Douglas machines with "Liberty" engines. Actually starting from Santa Monica, California, the real world flight was reckoned to have begun at Seattle. Here the start was made on April 6, 1924, and the route lay via Alaska, the Aleutian Islands, Japan, Hong Kong, Saigon, Bangkok, Rangoon, Calcutta, Allahabad, Karachi, Bushire, Baghdad, Aleppo, Constantinople, Bucharest, Budapest, Vienna, Paris, London, Brough, Kirkwall, Reykjavik, and thence via Greenland and Labrador to New York, Washington, Chicago, and across to California again, and finally up to the starting point at Seattle, which was reached on September 28. This route, although not being strictly along any great-circle line, covered a much greater distance than the Post and Gatty route. The longest of all was, however, Kingsford Smith's in the Fokker monoplane *Southern Cross*. This was not a single flight, but more strictly speaking a series of flights by which Kingsford Smith circled the globe in the true sense of the expression. The first of these flights was from California to Australia, via Hawaii and Fiji Islands, and was made in the period May 31, 1928-June 10, 1928. The next stage was Sydney-Croydon, and was made in the period June 25, 1929-July 10, 1929. The third stage was made the following year, from Ireland to Newfoundland, on June 24-25, and then the final stage was completed by flying across the American continent from Newfoundland to California, which was reached on July 4, 1930. What Kingsford Smith was able to do in several stages, and with long intervals, should be possible of accomplishment in a relatively short time with modern engines and equipment, and so it will be seen that Mr. Duckham's trophy can be offered with every confidence that it will be won.—ED.]

BOOK REVIEWS

"Air Force Law in a Nutshell," by Capt. P. J. V. Rippon, I.A., ret'd., late Flt. Lt., R.A.F. (Gieves, Ltd., Portsmouth.) Obtainable from FLIGHT Office. Price 4s., post free.

Of all the many books which young R.A.F. officers are supposed to "read, mark, learn and inwardly digest," none causes greater gnashing of teeth and tearing of hair than that well-known blue volume called "Manual of Air Force Law." To find a way about this book requires the patience of a saint and the peculiar brain of a cross-word addict. Capt. Rippon, who has forsaken the noisy life of an Air Force officer for the more sequestered calm of the Inner Temple, has rendered a great service to officers by condensing Air Force law into a little booklet of some 50 pages, howbeit also in a binding of blue. "Air Force Law in a Nutshell" is not couched in legal phraseology, it is simply worded and simply laid out, therefore much more palatable and useful than its great-grandfather the official R.A.F. text volume; after all, every R.A.F. officer cannot be expected to be a legal specialist—God forbid; true, his duty lies in the air, but there is air and air, hot air, for instance, is most obnoxious to a pilot—it has no lift.

"Nine Lives," by John Trantum. (John Hamilton, Ltd.) Obtainable from FLIGHT Office. Price 9s., post free.

Mr. John Trantum, the parachutist, is a friendly and familiar figure in British aviation, and is accepted as the most practised and skilful in his sphere of entertainment. He has had a long innings—twelve years—in stepping into space with his bundle of silk, which may be taken as a testimony both to his ability and the parachute. Sensitive and apprehensive observers may wonder upon the breed of philosophy that men like Trantum use to combat the bogey of uncertainty that hovers over their lives. The truth is that a philosophy is not particularly necessary, because parachuting with modern equipment is as safe as modern flying. The inventor of an approved type of parachute is positive that there is no reason why a parachute should fail in normal conditions. Experience amply

supports him. One has only to become familiar with a parachute pack to allow credit for this opinion. If the ring is pulled vigorously, there is no conceivable technical reason why the pack should not fly open and stream out the canopy.

Although the pose of a dare-devil and all the irresponsibility that such a title implies naturally attaches to John Trantum, he is actually a considerate and deliberate-thinking man. There is an unexpected air of apprehension in his normal expression, which some may think is engendered by his work, but which actually derives from common shyness. Nevertheless, it is an air that suggests the right attitude towards his work, and instills more confidence in his spectators than a cocksure attitude would do.

Trantum is the writer of his book "Nine Lives," which makes thrilling reading for the lay mind. He is a Dane, but most of his air experience was obtained in America, as his American accent will confirm. Parachuting is only a selection in his repertoire. He is a pilot, has crashed machines as such for films, and generally embraced every antic in the skies that film producers can conjure up. "Back stage" views of thrilling films in course of production are interesting parts of his book.

Trantum is naturally proud of his recent world's record in the long-delayed jump class, when he fell freely for 17,250 ft. before opening his Irvin parachute, and it was perhaps his major contribution to the art of parachuting.

The parachute display is now a permanent feature of air meetings, and possibly the biggest draw from the financial viewpoint, and as long as Trantum is in the profession he has it in him—as his book unintentionally shows—to remain a leading exponent. He has original ideas for improving the spectacular appeal of aerial antics, but perhaps we shall not see the best of them until the official regard becomes more tolerant. While many people in the aviation world may deprecate the circus element now prevalent, it has come to stay, and it will in time require great artists in aerial showmanship, for which the modest but daring Trantum has a flair.

R.A.F. APPRENTICES' SCHOOL, HALTON

THE following are extracts from the Report by Air Vice-Marshal N. D. K. MacEwen, C.M.G., D.S.O., Air Officer Commanding, Royal Air Force, Halton, upon the occasion of the Passing-Out of the 22nd (September, 1930) Entry of Aircraft Apprentices.

Of the 550 boys originally attested:—69 were posted to the Electrical and Wireless School for training as Electricians and Wireless Operator Mechanics; 8 were granted discharge by purchase; 21 were discharged as "Unlikely to become efficient airmen"; 9 were discharged on medical grounds; 3 were remustered to Aircraftman; 4 died; 12 were transferred to junior entries; and 14 were transferred from senior entries, leaving 438 to pass-out from Halton.

These have been trained as follows:—Fitters, Aero Engine, 237; Metal Riggers, 172; Fitters, Armourer, 15; and Coppersmiths and Sheet Metal Workers, 14.

As a result of the final examinations:—69 Aircraft apprentices, have been classified as Leading Aircraftmen; 323 have been classified as Aircraftmen, First Class; 38 have been classified as Aircraftmen, Second Class; 3 aircraft apprentices failed to qualify; and 5 were not examined owing to sickness.

The number of apprentices of this entry who have been classified as either Leading Aircraftmen or Aircraftmen, First Class, is approximately 90 per cent; this is the highest percentage of any entry on passing-out.

The standard of cleanliness of barrack rooms and upkeep of kits and equipment is very satisfactory. On the whole, the general behaviour of the entry has been excellent. In games the entry has been above the average, particularly in swimming; 6 apprentices of this entry have been selected to represent the Command, and one was chosen to represent the Royal Air Force in the Inter-Services Swimming Championships. Efforts have been made, with considerable success, to have every apprentice playing some, if not all forms of sport, the number taking part in no games at all being very small.

As a result of the final examination in educational subjects:—21 gained the distinction of obtaining 75 per cent. or more of the total number of marks; in addition to these, 350 gained exemption from the educational test for reclassification to Leading Aircraftman, by obtaining over 50 per cent, but under 75 per cent., while 67 failed to obtain 50 per cent. of the total number of marks.

The results have confirmed the impression formed during the training, that in regard to education the average level of the Fitters has been noticeably higher than that of the Metal Riggers, although among the latter there are a number of outstanding apprentices. The exceptional result obtained by Sergeant Apprentice A. J. Mason is, I think, deserving of special mention. He obtained 90 per cent. at the educational examination and 91 per cent. at the Central Trade Test Board examination.

The health of the entry has been satisfactory.

AWARDS.

The following is a list of the awards:—

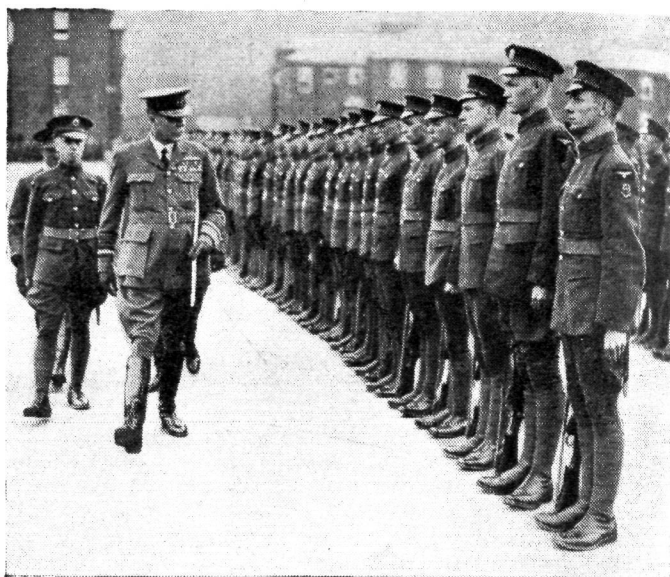
Grand Aggregate:—1st Prize: A. J. Mason (Fitter, A.E.); 2nd Prize: J. D. Melvin (Fitter, A.E.); 3rd Prize: J. R. Pavay (Fitter, A.E.).

1st Fitter, A.E.:—A. J. Mason (Fitter, A.E.).

1st Metal Rigger:—S. C. Williams (Metal Rigger).

1st Coppersmith and Fitter Armourer (combined):—C. L. Yarrow (Fitter Armourer).

1st Educational Subjects:—A. J. Mason (Fitter, A.E.).



Lord Trenchard inspecting the September, 1930, Entry on Henderson & Groves Barracks Parade Ground at Halton.

Cadetships:—Cadetships have been awarded to A. J. Mason, J. D. Melvin, J. W. Bayley, F. E. Croce.

Lord Wakefield Scholarship:—The Lord Wakefield Scholarship has been awarded to A. J. Mason (Fitter, A.E.).

Elliott Memorial Prize:—The Elliott Memorial Prize has been awarded to A. J. Mason (Fitter, A.E.).

FLYING OFFICER C. H. L. NEEDHAM, of Halton Camp, has been awarded the Diploma of Honour and the Medal of the Carnegie Trust of Switzerland, for the rescue of a drowning man from Lake Lugano last year. Flying Officer Needham, who was on holiday at the time, noticed that a swimmer had disappeared in a deep part of the lake and immediately plunged in, dived several times, and saved the swimmer.



BRIEFLY

Section Gantoise de Vol sans Moteur, the Belgian company at Ghent who are manufacturing the B.A.C. "Drone" under licence, have recently finished their machine, which now has a Belgian Certificate of Airworthiness. (See p. 782.)

Mr. Pennington, who makes a speciality of flying jockeys and trainers about on their business, tells us that when flying up from the South Coast on Sunday evening, the whole of the Brighton Road from Crawley to south of Haywards Heath was a stationary mass of traffic owing to a crash beyond Crawley. . . . How about aircraft for traffic control during week-ends?

Mr. Hubert Scott-Paine invited a number of friends to see his new boat, *Miss Britain III*, on Thursday, August 3. The boat has a Napier "Lion" engine, and in her Mr. Scott-Paine will race for the British International Trophy at Detroit, in the U.S.A., during September.

We should like to know whether the gold pencil which was the buried treasure at last year's Cardiff Meeting, but which could not be found after Mr. F. R. Walker had been judged to have landed nearest the place where it was supposed to be, was used again for this year's meeting?

Wing Com. Probyn, describing the race at Lympne on July 22, said that he was flying his "Hawk" with the wheels almost in the dust, but was beaten for first place in his heat because the Comper "Swift" had been built so small that Mr. H. Leech was able to creep out of the corn, fly under the "Hawk's" wing and win by a short head!

Since starting joyriding with the British Hospitals Air Pageants on April 8, Miss Pauline Gower has done over 200 hr. flying and taken up over 4,000 people in her Spartan three-seater ("Hermes II"). She has flown every day, with two exceptions during their period, and Miss

Dorothy Spicer has, except for a short spell during which she suffered from ptomaine poisoning, looked after the aircraft and engine all the time.

The King's Cup course was finished for Mr. F. R. Walker, who crashed during the race, when he was flown back in the Brooklands Airways' Junkers from the hospital at Northampton. Mr. Walker has made considerable progress, so that he is now able to continue his convalescence in his own home.

The single-seater "Autogiro," built by J. & G. Weir at Glasgow, has now been delivered to Hanworth, where it has been flown both by Señor de la Cierva and Mr. Marsh. We understand that it flies well and that its Douglas "Dryad" engine is remarkably free from vibration. It will not go into quantity production until Señor Cierva has completed further experiments with the larger (C.30) direct-controlled model.

Over 160 hr. instructional flying were done at the Autogiro school at Hanworth last month.

A visitor to Heston last Sunday was a French pilot in a "Caudron 286" three-seater, high-wing, cabin monoplane. A "Gipsy III" engine was fitted. All the three seats had parachutes built integral with the seat backs. Static lines affixed to the fuselage ensure that the parachutes open when a passenger "abandons ship."

Heston always offers much of interest, and on one morning recently there were no less than 11 varieties of aircraft on the tarmac, including:—"Caudron 236," "Moth" ("Gipsy II"), "Puss Moth" ("Gipsy III"), "Swift" (Pobjoy), Spartan ("Javelin"), "Cadet" (7-cyl. "Genet"), "Moth" ("Cirrus III"), "Waco" ("Continental"), "Gull" ("Javelin"), "Gull" ("Gipsy Major"), Fiat (Fiat).

We hear that the large cabin "Autogiro" which is being built for the Air Ministry has reached the design stage and should be flying early next spring.

THE ROYAL AIR FORCE

London Gazette, July 25, 1933

General Duties Branch

362757 Sgt. C. G. Lott is granted a permanent commn. as Pilot Officer on probation, with effect from and with seny. of April 9. The follg. Pilot Officers are promoted to rank of Flying Officer:—D. A. Gibson (April 27); S. P. Langston, G. H. O. Mills, E. F. Porter, A. Pyke, and H. D. Raynham (June 19).

Sqdn.-Ldr. A. G. Bond, A.F.C., is placed on half-pay list, Scale B, from July 25 to July 26, inclusive. Lt.-Cdr. J. F. M. Robertson, R.N., Flying Officer, R.A.F., relinquishes his temp. commn. on return to Naval duty (Dec. 12, 1932) (substituted for *Gazette* Dec. 20, 1932). The short service commn. of Acting Pilot Officer on probation C. G. F. Smartt is terminated on cessation of duty (July 26); Flt. Lt. P. McK. Terry, A.F.C., is cashiered by sentence of General Court-martial (July 18).

Medical Branch

The follg. Flying Officers are promoted to rank of Flight Lt. (July 18):—J. A. Kersley, M.R.C.S., L.R.C.P., and O. S. M. Williams, M.R.C.S., L.R.C.P.

Memoranda

Sqdn. Ldr. H. G. R. Malet is removed from retired list (July 19); Flt. Lt. S. G. Linssen is removed from retired list (July 19).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Wing Commanders.—L. F. Forbes, M.C., to Station H.Q., Netheravon (July 10), to command, *vice* Wing Commander H. P. Lale, D.S.O., D.F.C.; R. Halley, D.F.C., A.F.C., to No. 500 (County of Kent) (B) Squadron, Manston (July 10), to command *vice* Wing Commander L. F. Forbes, M.C.

Squadron Leaders.—R. M. C. Macfarlane, M.C., to School of Army Co-operation, Old Sarum, 15.7.33, for Flying (Chief Instructor) duties *vice* W/Cdr. J. B. Cole-Hamilton. A. R. M. Rickards, O.B.E., A.F.C., to No. 55 (B) Sqdn., Hinaidi, Iraq, 17.6.33, to command, *vice* S/Ldr. G. A. H. Pidcock. B. J. Silly, M.C., D.F.C., to No. 5 Flying Training School, Sealand, 19.7.33, for duty as Chief Flying Instructor.

Flight Lieutenants.—G. V. Carey, to No. 100 (B) Sqdn., Donibristle (July 10); J. G. Hawtrey, to No. 601 (County of London) (B) Sqdn., Hendon (July 8); J. R. Jones, to H.Q., Wessex Bombing Area, Andover (July 7); S. M. Park, to No. 99 (B) Sqdn., Upper Heyford (July 10). G. R. Ashton, to R.A.F. Base, Gosport, 6.7.33. G. A. Hadley, to Air Ministry, Dept. of C.A.S., (D.O.S.D.), 19.7.33. W. L. Payne, to Air Pilotage School, Andover, 18.7.33. H. N. Thornton, to Air Ministry, Dept. of C.A.S. (D.O.S.D.), 15.7.33. N. Yonug, to School of Naval Co-operation, Lee-on-Solent, 16.7.33. A. E. Rogenhagen, to R.A.F. Base, Gosport, 20.7.33.

ROYAL AIR FORCE RESERVE RESERVE OF AIR FORCE OFFICERS

General Duties Branch

F/O. C. D. Barnard is transferred from Class A to Class C (July 17); F/O. N. N. McKinnon is transferred from Class AA (ii) to Class C (Feb. 10); *Gazette* May 16 concerning F/O. H. A. Francis, A.F.C., is cancelled.

AUXILIARY AIR FORCE

General Duties Branch

No. 601 (COUNTY OF LONDON) (BOMBER) SQUADRON.—A. C. W. Norman is granted a commn. as Pilot Officer (July 25).

No. 602 (CITY OF GLASGOW) (BOMBER) SQUADRON.—K. E. Kennedy is granted a commn. as Pilot Officer (July 10).

No. 604 (COUNTY OF MIDDLESEX) (BOMBER) SQUADRON.—F/O. D. H. Back relinquishes his commn. on completion of service (May 21).

No. 607 (COUNTY OF DURHAM) (BOMBER) SQUADRON.—L. E. Smith is granted a commn. as Pilot Officer (July 3).

Flying Officers: A. D. Messenger, to Station H.Q., Hal Far, Malta, 5.7.33. H. M. Bowes-Lyon, to No. 11 (B) Sqdn., Risalpur, India, 22.6.33. C. V. Ogden, to No. 16 (A.C.) Sqdn., Old Sarum, 19.7.33. A. Threapleton, to No. 1 Armoured Car Coy., Hinaidi, Iraq, 4.7.33.

Pilot Officer C. G. Lott, to No. 41 (F) Sqdn., Northolt, 10.7.33, on appointment to a Permanent Commn. as P/O. (on probn.)

Stores Branch

Flight Lieutenant F. D. D. Gausson, to Station H.Q., Netheravon, 18.7.33.

Accountant Branch.

Flight Lieutenant S. C. Wyatt, to Station H.Q., Worthy Down, 15.7.33.

Medical Branch

Flight Lieutenant J. C. Neely, to Station H.Q., Duxford, 17.7.33. **Flying Officer** L. Jones (Med. Quartermaster), to R.A.F. Hospital, Cranwell, 12.7.33, on appointment to a Permanent Commn.

NAVAL APPOINTMENT

The following appointment has been made by the Admiralty:—
Lieut (F/O. R.A.F.) A. F. Black, to *York*.

Bombing from the Air

REAR-ADMIRAL MURRAY F. SUETER, R.N. (retired), M.P., who was the first Captain of A.1 Submarine, has sent the following letter to *The Times*:—

SIR,—Your issue of July 21 contained a letter signed by a large number of influential women who consider that in the interests of children aerial bombing should be abolished.

May I remind them that Admiral Sims, U.S.N., in his first report to Washington after America came into the War early in 1917, stated that there was only sufficient grain in this country to last three weeks. The total tonnage of British merchant ships sunk during the War by German submarines reached the colossal figure of 6,625,059 tons, and at one time we had only 10 days' food in this country. To meet this grave submarine menace the Admiralty mobilized all their resources in the way of fast surface craft, "Q" boats, mines, nets, etc. Aircraft were called upon to do their utmost in the emergency. A naval writer has recently stated that the airmen destroyed seven submarines by bombing in 1917, but he forgot to mention the many submarines that just struggled back to port, severely shaken, with rivets weeping, superstructure damaged, and crew disinclined to resume the fight because they disliked most intensely aerial observation and feared aerial bombing. Some other submarines were destroyed by the fine work of our surface craft, assisted by the airmen spotting the submarine. Thus was saved the food of our children and our people.

May I suggest with great respect to the women who signed the protest to abolish all air-bombing that they are attempting to deprive Great Britain of one of the most valuable defences against submarine attack on her food ships, and while any possible enemy retains submarines it is prudent for us to retain bombing aircraft. In my judgment, international agreement should be sought in the direction of clearly marking open towns that have no armaments, no munition factories, and the inhabitants of which are non-combatants, with captive balloons in daytime and a single cordon of searchlights at night. The nations might be persuaded to refrain from bombing these open cities in much the same way as they so splendidly abstained from using expanding bullets in the late War. If such an agreement can be arrived at, some of our children will be safe. Others will be safer if the women, after studying the unsettled state of Europe at the present time, will read Herr Hitler's book, in which he states:—

"One does not regain lost territories through the ready tongues of polished Parliamentary whiners; they are to be conquered by a polished sword—that is, by a bloody struggle."—("Mein Kampf," Vol. II, page 710.)

and then press upon their member of Parliament that it is prudent for this country, that can only feed a small proportion of its people, to have at least a one-power naval standard, an adequate military force to safeguard our responsibilities in India, Egypt, etc., and a sufficient Air Force that can meet any single Power with every prospect of success.

Examinations for Civil Air Navigators' Licences.

An Air Ministry Notice to Airmen states that an examination for Second Class Air Navigators' Licences will be held on Monday, Tuesday and Wednesday, 2nd, 3rd, and 4th October, 1933, at the following centres:—

- (a) LONDON (the offices of H.M. Civil Service Commissioners, 6, Burlington Gardens, W.1).
- (b) HELIOPOLIS (the office of the British Civil Aviation Directorate Representative in Egypt, Heliopolis Aerodrome).
- (c) BAGHDAD (Hinaidi Aerodrome).
- (d) SINGAPORE (Seletar Aerodrome).

Application forms, syllabi and the conditions of examination may be obtained on application in writing to (1) the Secretary, Air Ministry (C.A.2.), Adastral House, Kingsway, London, W.C.2., (ii) the British Civil Aviation Directorate Representative in Egypt, Heliopolis Aerodrome, Heliopolis, Egypt, or (iii) the Officer Commanding, R.A.F. Headquarters, Far East Command, Singapore, Straits Settlements.

Formal applications for permission to attend these examinations must be made on form C.A.2.c, and, together with the prescribed fees, must have been received at the appropriate address not later than Monday, 4th September, 1933.

Protection of Aircraft from Lightning

ATTENTION is drawn by the Air Ministry to the precautions necessary to avoid the danger of aircraft being struck by lightning.

Only ten such accidents to British aircraft, service and civil, have been reported since 1925, and no serious damage occurred. The following appear to be determining considerations:—

- (i) Meteorological reports indicated the possibility of thundery conditions.
- (ii) The aircraft flew into or close below the clouds before being struck.
- (iii) Nearly all the aircraft had the wireless aerial trailing.

In order to avoid danger, it is necessary, where service conditions will allow, to adopt the following precautions:—

- (i) (a) Avoid all large cloud masses from which showers of rain, hail or snow are falling, especially when meteorological reports give indications of thundery weather—hail is always to be regarded as dangerous.
- (b) When wireless is being used in the aircraft, an increase in the number and strength of atmospherics will generally indicate that a danger area is being approached. When the wireless apparatus is being operated by a wireless operator, he is to inform the pilot of such an increase. The pilot will consider this information in conjunction with the weather conditions which he can see ahead of him, in deciding whether conditions are actually dangerous.

(ii) If it is not possible to avoid danger areas, the trailing aerial should be earthed and wound in, the aircraft being kept clear of danger areas mentioned in sub-para. (i) above until this is done; little danger is to be expected after the trailing aerial has been wound in.

Note.—Should the aircraft already be in a danger area, for example, in a hail storm, it may be dangerous to the W/T operator to wind in the aerial. In this case, the aerial should merely be earthed and the aircraft flown out of the storm as quickly as possible; if necessary, the aircraft should be flown back on its course to give the operator an opportunity to wind in the trailing aerial before proceeding through the storm.

(iii) Whenever possible, the aircraft should be flown well below the lowest layer of any cloud masses encountered.

The adoption of any or all of these precautions must depend on the conditions of the service on which the aircraft is engaged and therefore rests at the discretion of the pilot.

AIR POST STAMPS

By DOUGLAS ARMSTRONG

(Editor of "Stamp Collecting")

More Italian Flight Stamps

To the list of special stamps created in connection with the Transatlantic flight of the Italian seaplane squadron under leadership of General Balbo must be added three from Iceland in the form of the contemporary 1-, 5- and 10-kroner postage stamps overprinted diagonally, with the inscription "Hopflug Italia, 1933," which were used upon the mail picked up at Reykjavik on the outward flight, and a single provisional surcharge made by the Newfoundland post office preparatory to the return trip to Europe, on July 24.

Numerous requests having been received for letters to be despatched by the flight when it touched at Shoal Harbour *en route* for Rome, a limited mail was opened at a charge of \$4.50 per ½-oz. letter, and in the absence of an air mail stamp of the required denomination some 8,000 copies of the newly-issued 75 cents vignette were ordered to be surcharged in the corners with the higher value for the occasion.

Lithuanian Flyers' Mail

Disaster as well as triumph is recorded in the stamps associated with spectacular flights undertaken by intrepid aviators. Newspaper reports of the tragic fate that overtook the two Lithuanian airmen on the last lap of their attempted flight from New York to Kovno made reference to the mail which was recovered from their wrecked aeroplane, but it does not appear to be generally known that stamps of a distinctive character were provided by the Lithuanian Consulate General in New York for use on letters sent home by Lithuanian compatriots in America. With the sanction of the home authorities, five hundred copies of each of the five values comprising the commemorative air mail stamps of Lithuania (series 1932) were locally overprinted with a small aeroplane device surmounting the inscription "Darius-Girenas-New York-1933-Kaunas," and arrangements were made with the United States post office at Brooklyn to recognise and accept these stamps for the purpose of the special mail which is said to have comprised about 1,500 letters. They were sold both by the Consulate and the Lithuanian Societies in New York in aid of the funds of the flight, and their status is similar to that of the *Ile de France* emergency air stamps of 1928.

Latest Hungarian "Airs"

The symbolism that has characterised previous issues of Hungarian aero stamps is even more strikingly developed in the latest series which made its *début* on June 20 in four effective designs by the artists Franz Helbing and Fec. Marton, all finely reproduced in photogravure by the National Printing Works at Budapest. The lower values depict a giant passenger aeroplane passing over the valley of the Danube, whilst those of 20 filler and upwards comprise a symbolical figure of "Flight" perched upon the wing of a flying aeroplane, an aeroplane emerging from the Dawn, with the cross of St. Stephen and the mountains Tatra, Fatra and Matra in the foreground, and a figure of Mercury with arms outstretched supporting a propeller.

New Philippines Air Mail

On the inauguration of an inter-island air mail service connecting Manila with Oliolo and Negros in the Philippine Islands on May 26 last, five of the regular postage stamps now current were adapted to air post purposes by overprinting them with the outline of an aeroplane having the words "Air Mail" inscribed on its wings. The lowest value, *viz.*, 2 centavos, is in the old portrait type, but the 4 c., 12 c., 20 c., and 24 c. are all pictorial designs.

Forthcoming Aero Stamps

From time to time rumours have been current as to an impending issue of Turkish air mail stamps in connection with the Istanbul-Athens-Brindisi service, but all have proved to be ill-founded. Now it is again reported that the Turkish post office is to issue a special stamp for letters to be carried by the Italian seaplane service that will be put in operation shortly between Istanbul and Rome.

Spain, who discontinued the use of distinctive stamps for air-borne correspondence some years ago, is said to have in active preparation a new series of Government aero stamps in denominations 5 c., 10 c., 25 c., 50 c., 1 p., 2.50 p., 3 p., 5 p., and 10 p., the higher values being required for the South American air mail system.

Continental reports state that the United States post office will introduce at an early date a new 8 cents air mail stamp bearing a picture of the ill-fated naval airship *Akron*, and that a total of 5 million copies will be printed, in black.

Air Post Awards at Vienna

High awards were conferred upon British air post collections by the Jury of the International Philatelic Exhibition (Wipa), which was concluded at Vienna on July 9. A handsome bronze statuette donated by the Austrian Aero-Technical Union was conferred upon Miss W. Penn Gaskell's famous collection of pioneer air mail stamps and covers, together with a gold plaque from the Exhibition Committee itself. Mrs. Anson McCleverty's collections of mint air mail stamps of the world gained her the prize for the best exhibit entered by a lady in the shape of a fine piece of silver filigree work, in addition to a gold medal in the special class. A silver-gilt medal went to Mr. W. Lindsay Everard, M.P., whose exhibit was composed of stamps illustrating various types of aircraft, whilst Mr. R. E. R. Dalwick secured a silver medal with his display of air stamps of the British Empire. Bronze medals fell to Mr. J. A. R. Dryden for a specialised collection of the first United Kingdom Aerial Postcards and covers, and to Miss Gertrude Collins for Persian air post stamps and covers. It is curious that, in view of the large number of air post collections entered for the exhibition, no special class was provided, but each was shown in competition with ordinary stamps in the respective sections.



The Terminal Velocity Dive

An important feature of the performance trials of modern fighting aircraft is the diving test, during which the machine is allowed to dive vertically until its terminal velocity is reached. Under these conditions the rate of revolutions of the engine may increase up to 30 per cent. above the normal type approved r.p.m., increasing the dynamic loadings and stresses of vital components by as much as 70 per cent. The Bristol Company have designed their latest fighter-type engine, the "Mercury V-S.2," to meet these conditions. As the present standard schedule of tests for type approval of aircraft engines does not cover these excess speeds, this engine on completion of its official type test was submitted to supplementary high-speed tests comprising 1 hr. at 20 per cent. above normal r.p.m. followed by 10 min. at 30 per cent. above normal r.p.m. The test satisfactorily concluded, the engine was stripped and as the official report states: "The special checks taken before and after test do not reveal any appreciable detrimental effect of the high-speed running."



PUBLICATIONS RECEIVED

Airsense. By W. O. Manning, F.R.Ae.S. London: Sir Isaac Pitman and Sons, Ltd. Price 3s. 6d. net.

Aeronautical Research Committee Reports and Memoranda: No. 1451. Wind Tunnel Interference on Streamline Bodies. By C. N. H. Lock and F. C. Johansen. June, 1931. London: H.M. Stationery Office, W.C.2. Price 1s. 3d. net.

Air Power and War Rights. 2nd Edition. By J. M. Spaight. London: Longmans, Green and Co., Ltd. Price 25s. net.

Patents and Trade Marks. By Benj. T. King, C.I.M.E. King's Patent Agency, Ltd., 146A, Queen Victoria Street, E.C.4.



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AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. (The numbers in brackets are those under which the Specification will be printed and abridged, etc.)

APPLIED FOR IN 1931

Published August 3, 1933

- 3,463. DAIMLER-BENZ AKT.-GES. Aeroplanes. (395,057.)
- 12,379. L. L. DRIGGS, JUN. Parachute flares. (395,126.)
- 16,202. FAIREY AVIATION CO., LTD., A. G. FORSYTH and G. J. SMITH-PERT. Dynamos for aircraft. (395,141.)
- 17,509. DUNLOP RUBBER CO., LTD., E. F. GOODYEAR and J. WRIGHT. Aeroplane wheels and fairings. (395,150.)
- 19,236. AEROL ENGINE CORPN. Combustion chambers for i.c. engines. (395,157.)
- 25,686. E. G. BUDD MANUFACTURING CO. Aircraft bodies. (395,194.)
- 36,771. AIRSPEED, LTD., and A. H. TILTMAN. Control of aircraft. (395,259.)

Personals

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To be Married.

ROSE: ORR-DICKSON.—An engagement is announced between LIEUT.-COMMANDER RICHARD E. B. ROSE, R.N. (retired) (late R.A.F.), elder son of Maj. and Mrs. Rose, of Coteleigh, Minehead, and KATHLEEN (KAL), eldest daughter of Mr. and Mrs. T. Orr-Dickson, Seaton, Devon.

Married.

DIXON: WELLESLEY.—On July 20, 1933, at St. Margaret's Westminster, DANIEL STEWART THOMAS BINGHAM DIXON, Grenadier Guards, son of Mr. Herbert Dixon, P.C., and the Hon. Mrs. Dixon, of Draycot Cerne, Chippenham, and Orangefield, Belfast, to LADY DIANA MARY WELLESLEY, daughter of Clare Countess Cowley and of the late Earl Cowley, of Seagry House, Chippenham.

GURNEY: WALKEY.—On July 21, 1933, in the Parish Church, Wendover, by the Revs. C. E. Roberts, Rural Dean, assisted by the Revs. G. A. Davis, R.A.F., and H. Thomas, R.A.F., JOHN FITZGERALD GREGG GURNEY, R.A., eldest son of Mr. and Mrs. M. S. Gurney, of Monkton Combe, Bath, and BETTY, second daughter, of the Rev. J. R. Walkey, R.A.F., and Mrs. Walkey, of Bacombe Lodge, Wendover.

HARRISON: WADLER.—On July 25, 1933, at Emmanuel Church, West Hampstead, FRANK HARRISON, R.A.F. Educational Service, to WINIFRED ELIZABETH, eldest daughter of Capt. G. C. Wadler, R.A.S.C. (ret'd.), and Mrs. Wadler, of Restalrig, Edinburgh.

HUNT: TUBBS.—On July 22, 1933, in Cairo, ALFRED WILLIAM HUNT, R.A.F., of Melbourne, to MARY ISOBEL TUBBS, of Southampton.

Births.

BLOCKEY.—On July 16, 1933, at Marley, Haslemere, Surrey, to ELBA, wife of FLIGHT-LIEUT. P. S. BLOCKEY—TWIN SONS.

HALL.—On July 18, 1933, at Bristol, to FLIGHT-LIEUT. and Mrs. R. W. M. HALL (née Beatrice Harrison)—a daughter.

PIGOTT.—On July 27, 1933, at 19, Bentinck Street, to PHYLLIS, wife of FLIGHT-LIEUT. O. R. PIGOTT—a son.

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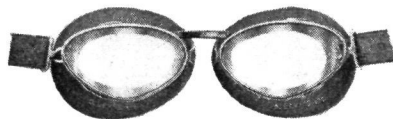
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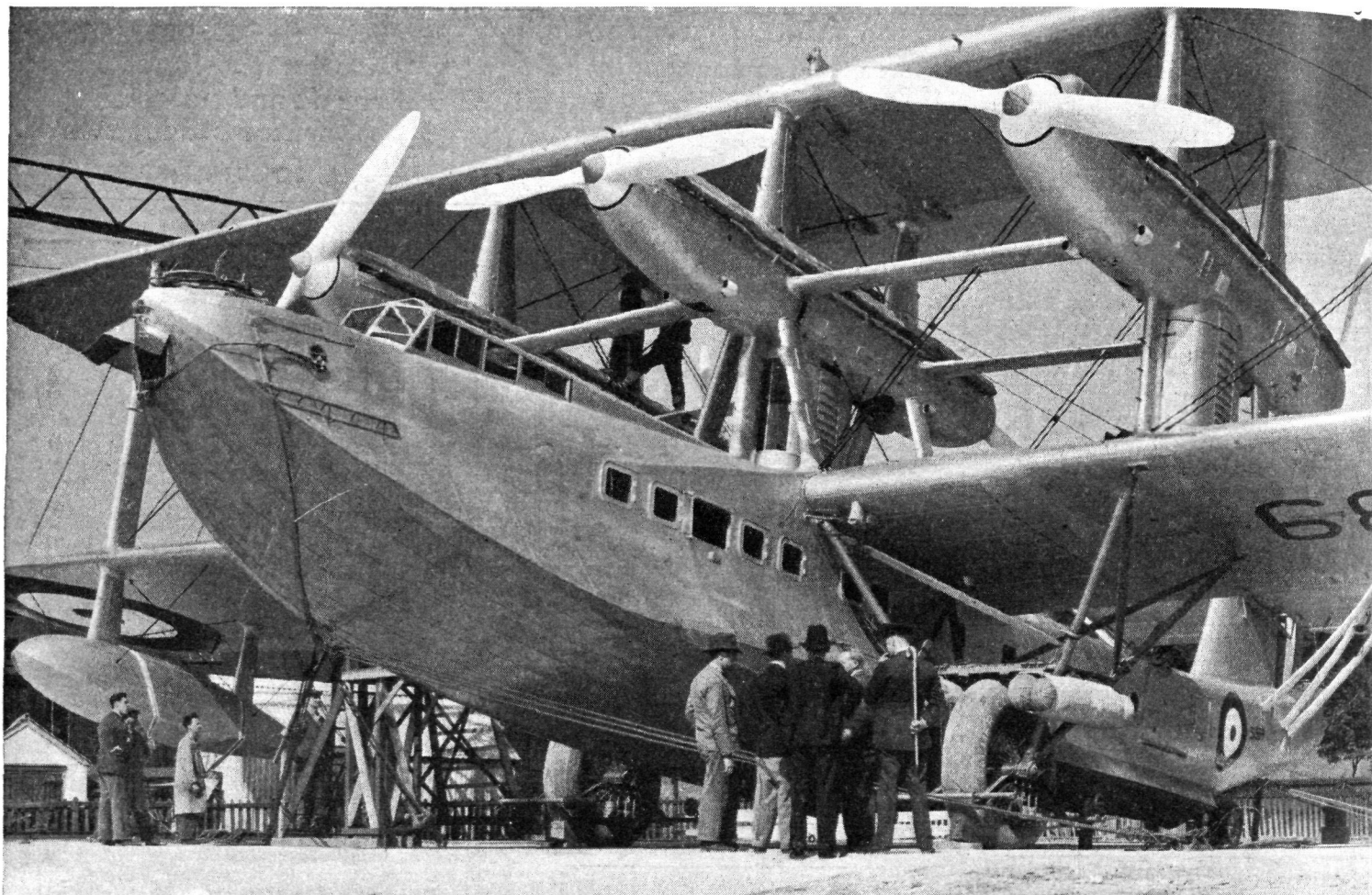
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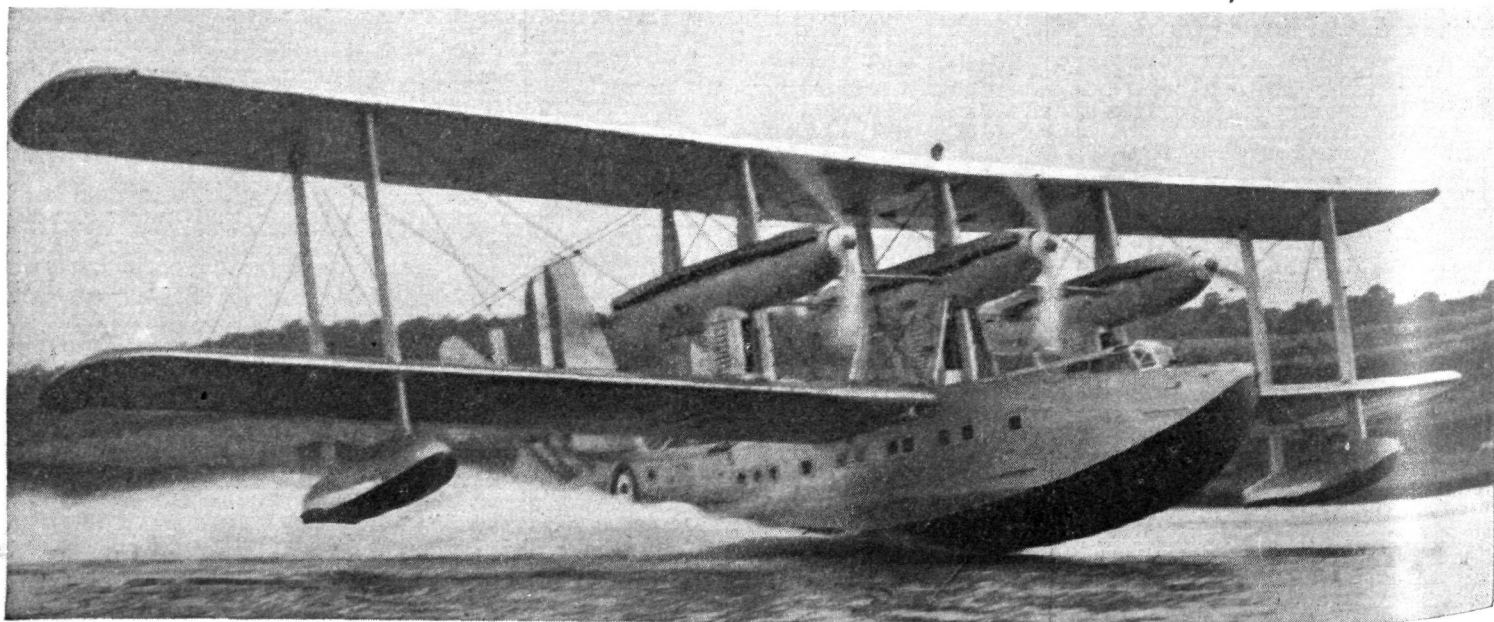
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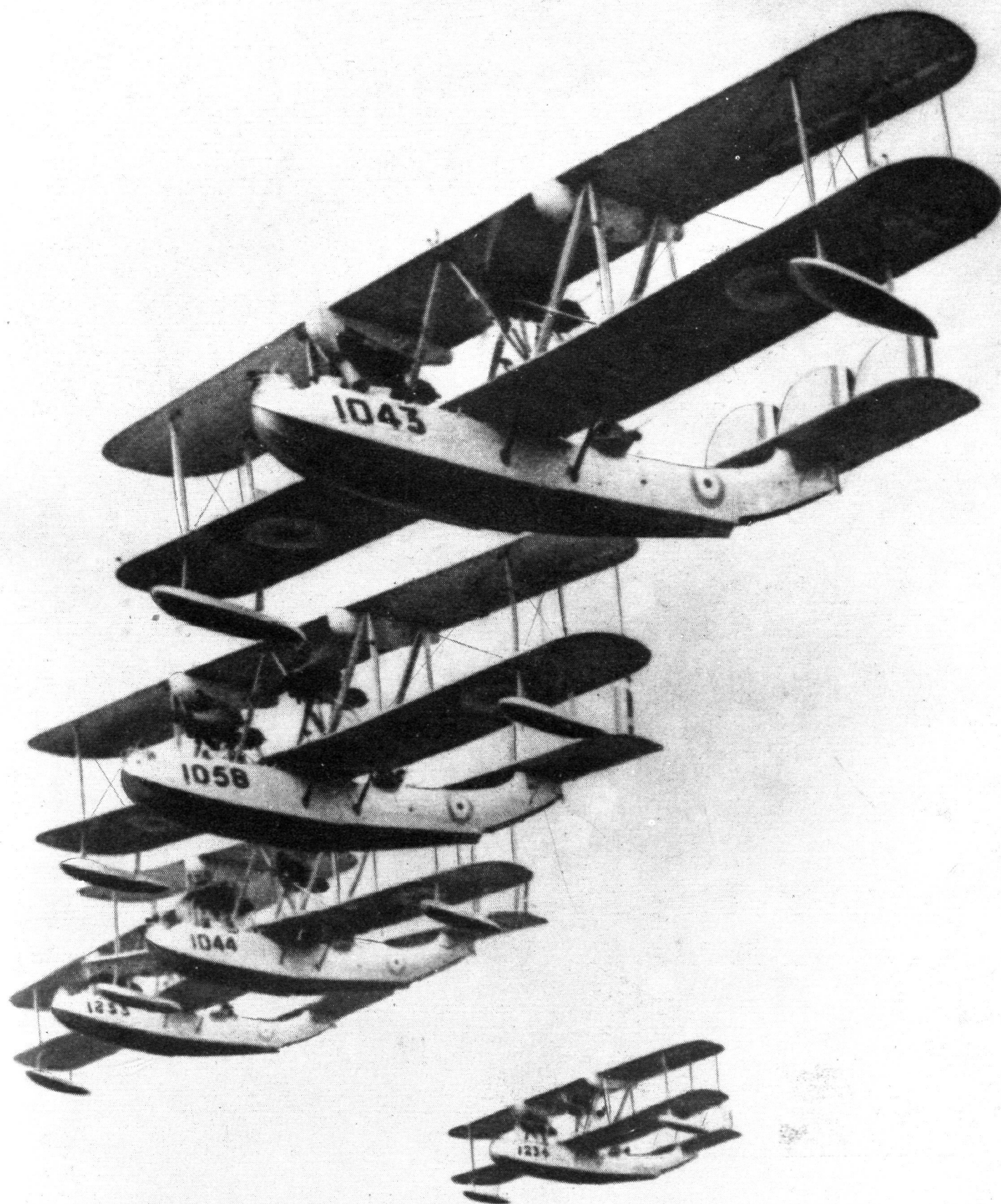
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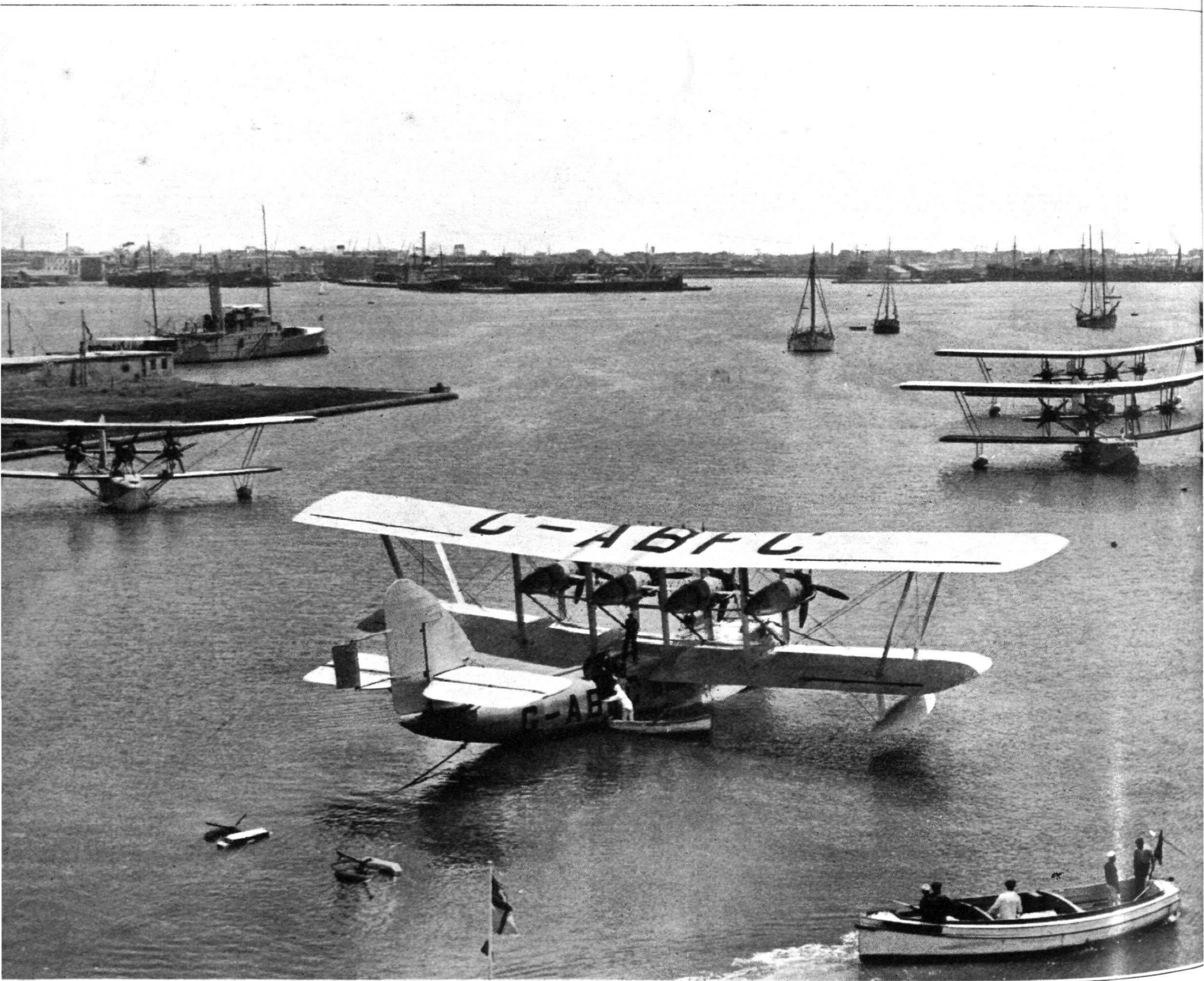
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